



RESOURCE AND PATIENT MANAGEMENT SYSTEM

IMMUNIZATION MODULE

(BI)

User Manual

Version 8.2
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Division of Information Resource Management
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PREFACE

The purpose of this manual is to provide users with the information they need to appropriately understand and use the RPMS Immunization Module. This manual describes all of the processes and procedures involved in collecting and managing the immunization data of patients, and the specific steps involved in the setup and customization of the software for use at individual sites.

TABLE OF CONTENTS

1.0	Introduction	1
2.0	New Features of Version 8.2	2
2.1	Most Important New Features	2
2.1.1	Human Papillomavirus (HPV) vaccine Forecasting	2
2.1.2	New Adolescent Report	2
2.1.3	New Lot Number Inventory Tracking	2
2.1.4	Forecasting for Rotavirus (v8.1*1 patch)	2
2.1.5	Influenza vaccine routinely forecast for children 6 - 59 months (v8.1*1 patch)	2
2.1.6	Second dose of Varicella Forecast at 4 - 18 Years (v8.1*1 patch)	3
2.1.7	MMR maximum age 18 years (v8.1*1 patch)	3
2.2	Patient Menu	3
2.2.1	Meningococcal Conjugate 4-valent (meningCV4, Menactra) Forecasting	3
2.2.2	New "Vaccine Unavailable" Reason for Contraindication	3
2.2.3	Due Lists	3
2.3	Reports Menu	3
2.3.1	New Adolescent Report for 11 to 12, 13, and 13 to 17-year-olds	3
2.3.2	New Adult Report "Quarter Ending Date" Parameter.	4
2.3.3	Two-Year-Old Report	4
2.4	Manager Menu	4
2.4.1	New Vaccines	4
2.4.2	New Vaccine Forecasting Options	4
2.4.3	Vaccine Forecasting Options for HPV Vaccine	5
2.4.4	The Edit Vaccine Fields Screen	5
2.5	Other	5
2.5.1	Refusals Logged in PCC Refusals File	5
2.5.2	Positive PPD Results Automatically Create Contraindications	5
2.5.3	System records user who adds/edits and Immunization	5
2.5.4	New Option Added: BI LOT NUMBER NON-MANAGER	5
2.5.5	Second Line for Street Address in Letters	6
2.5.6	"Help" Actions at the Bottom of All Screens	6
2.5.7	ImmServe Profile Provides More Detail on File Versions	6
3.0	Orientation	7
3.1	Overview of the System	7
3.2	Menu System	7
3.2.1	Patient Menu	8
3.2.2	Reports Menu	9
3.2.3	Managers Menu	9
3.3	Menu Diagram	10
3.4	Case Managers and the Program Manager	10
3.5	ImmServe Forecasting Program	11

3.6	Conventions in the Software and Manual	11
3.6.1	The Return Key	11
3.6.2	Double Slash (/)	11
3.6.3	Screenshots	11
3.6.4	On-line Help	12
3.6.5	Backspace and Arrow Keys	12
3.6.6	The Up-Hat (^)	12
3.6.7	The “Select Device:” Prompt	13
3.7	ListMan Screen Displays	13
3.7.1	Generic Actions	14
3.8	ScreenMan Displays	15
4.0	Patient Menu	17
4.1	Single Patient Record (SGL)	18
4.1.1	Add Immunization (A)	19
4.1.2	Skin Test Add (S)	23
4.1.3	Edit Visit (E)	24
4.1.4	Delete Visit (D)	25
4.1.5	ImmServe Profile (I)	25
4.1.6	Health Summary (H)	26
4.1.7	Patient Edit (P)	26
4.1.8	Contraindications (C)	28
4.1.9	Letter Print (L)	29
4.2	Print Individual Patient Letter (LET)	30
4.3	Patient Lists and Letters (LLS)	31
4.3.1	Overview of Patient List and Letters Parameters	32
4.3.2	Specifying Parameters for a List or Letter	33
4.3.3	Printing a List	38
4.3.4	Print a Due Letter	39
5.0	Reports Menu	41
5.1	Adolescent Immunization Report (ADO)	42
5.2	Adult Immunization Report (ADL)	45
5.3	Quarterly Immunization Report (QTR)	48
5.4	Two-Yr-Old Immunization Report	50
5.5	Vaccine Accountability Report (VAC)	53
6.0	Manager Menu	56
6.1	Edit Patient Errors (ERR)	57
6.2	Add/Edit Case Manager (CMG)	58
6.3	Transfer a Case Manager’s Patients (CMT)	58
6.4	Scan for Patients (SCN)	59
6.5	Site Parameters Edit (ESP)	59
6.6	Package Information (PKG)	63

6.7	Form Letters Add/Edit (LET)	64
6.7.1	Form Letter Section Descriptions:	66
6.8	Lot Number Add/Edit (LOT).....	67
6.9	Vaccine Table Edit (VAC).....	70
6.10	Re-Standardize the Vaccine Table (RES)	72
6.11	Export Immunizations (EXP)	72
6.11.1	Export Patients Individually	73
6.11.2	Export by Group	74
6.12	Allocate/De-Allocate Imm Menu Keys (KEY).....	76
7.0	Rules of Behavior	78
7.1	Specific RPMS Rules of Behavior	78
7.1.1	All RPMS Users	78
7.1.2	RPMS Developers.....	84
7.1.3	Privileged Users	84
8.0	Glossary	87
9.0	Contact Information	90
10.0	Appendix A: Change History	91
10.1	History of Changes	91
11.0	Appendix B: Vaccine Table for v8.2.....	100
12.0	Appendix C: ImmServe	103
13.0	Appendix D: High Risk ICD-9 Codes	107
13.1	Influenza.....	107
13.2	Pneumococcal.....	108
14.0	Appendix E: Package Setup Information	109
14.1	Options	109
14.2	Security	110
14.3	Devices	110
14.4	Site Parameters.....	111
14.5	Vaccine Table.....	112
14.6	Duplicate Lot Numbers	112
14.7	Protocols for Use by Other Packages	113
15.0	Appendix F: Word Processor Help	114
15.1	Summary of Key Sequences	114
15.1.1	Navigation	114
15.1.2	Exiting/Saving	114
15.1.3	Deleting	114
15.1.4	Settings/Modes	114
15.1.5	Formatting.....	115

15.1.6	Finding	115
15.1.7	Cutting/Copying/Pasting.....	115
15.2	Change to RPMS MailMan Full Screen Editor.....	115
16.0	Index.....	116

TABLE OF FIGURES

Figure 2-1: Screenshot of vaccine forecasting options.....	4
Figure 3-1: Main menu	8
Figure 3-2: Diagram of main menu.....	10
Figure 3-3: Sample screenshot	12
Figure 3-4: ListMan screen.....	13
Figure 3-5: Table of generic actions and descriptions	15
Figure 3-6: Sample screen of ScreenMan.....	16
Figure 4-1: Main menu	17
Figure 4-2: Patient menu	17
Figure 4-3: Patient immunization record screen.....	18
Figure 4-4: Add/edit immunization visit screen.....	20
Figure 4-5: Table of immunization entry categories	22
Figure 4-6: Add/edit immunization visit.....	24
Figure 4-7: Additional choices when editing a vaccine	24
Figure 4-8: Delete an immunization visit screen.....	25
Figure 4-9: ImmServe profile screen	26
Figure 4-10: Health summary screen	26
Figure 4-11: Patient edit screen	27
Figure 4-12: Contraindications screen.....	29
Figure 4-13: Letter print screen	30
Figure 4-14: Patient menu	30
Figure 4-15: Sample official immunization record	31
Figure 4-16: Patient menu	31
Figure 4-17: Immunization lists and letters screen	32
Figure 4-18: Patient group screen.....	33
Figure 4-19: Select communities screen	35
Figure 4-20: Additional items of patient information screen.....	37
Figure 4-21: Select order of listing screen.....	37
Figure 4-22: List of patients selected screen.....	39
Figure 4-23: Print a due letter screen	39
Figure 5-1: Main menu – reports option	41
Figure 5-2: Reports menu	42
Figure 5-3: Adult immunization report screen.....	43
Figure 5-4: Sample adult immunization report.....	45
Figure 5-5: Adult immunization report screen.....	47
Figure 5-6: Sample adult immunization report.....	47
Figure 5-7: Quarterly immunization report screen	49
Figure 5-8: Sample quarterly immunization report	50
Figure 5-9: Two-yr-old immunization rates report.....	51
Figure 5-10: Sample of two-year-old immunization report.....	53
Figure 5-11: Vaccine accountability report selection screen	54
Figure 5-12: Sample vaccine accountability report.....	55

Figure 6-1: Main menu – manager option	56
Figure 6-2: Manager menu	57
Figure 6-3: Edit patient errors screen	58
Figure 6-4: Add/edit case manager's screen	58
Figure 6-5: Transfer a case manager's patients screen	58
Figure 6-6: Edit site parameters screen	59
Figure 6-7: Vaccine forecasting options	61
Figure 6-8: Module information for immunization	64
Figure 6-9: Form letter add/edit screen	65
Figure 6-10: Lot number list screen	67
Figure 6-11: Lot number add/edit screen	69
Figure 6-12: Vaccine table edit screen	70
Figure 6-13: Vaccine table edit forecasting screen	71
Figure 6-14: Warning message	72
Figure 6-15: Export immunizations screen	73
Figure 6-16: Export data by individuals screen	73
Figure 6-17: Export data by group screen	75
Figure 6-18: Allocation/de-allocation of immunization keys screen	76
 Figure 9-1: Vaccine forecasting options	 97
 Figure 11-1: Vaccine forecasting rules	 104
Figure 11-2: Example of the current set of ImmServe forecasting rules	106
 Figure 13-1: Warning screen	 112

1.0 Introduction

This manual describes the use of the Indian Health Service (IHS) Resource and Patient Management System (RPMS) Immunization Module, version 8.2. The manual is designed to aid healthcare staff and computer personnel in the use of the new module. While there is context-sensitive on-line help available at all prompts (by typing **?**), this manual provides a more organized presentation of the features of the software.

The original RPMS Immunization tracking software was written in the 1980s. Version 7.0, which was a complete rewrite of the Immunization software, began in 1996 with consultation from a national team of IHS field staff that developed a set of design requirements for the software. The current version 8.2 software replaces v8.1, v8.0, v7.1, v7.0, and v6.8.

2.0 New Features of Version 8.2

The following features are new to version 8.2, categorized by menu options:

2.1 Most Important New Features

2.1.1 Human Papillomavirus (HPV) vaccine Forecasting

Version 8.2 provides two forecasting options for HPV vaccine. Providers can choose to forecast HPV vaccine for 11 to 18-year-old or 11 to 26-year-old females.

2.1.2 New Adolescent Report

There is a new adolescent immunization report which provides immunization coverage rates for single vaccines (HepB, HepA, Td/Tdap, MMR, Varicella, MeningCV4, Influenza and HPV vaccines) and combinations (e.g., 3HepB, 2MMR, 1Var, 1Td/Tdap) for adolescents 11 to 17-years-old with 2 visits in the past 3 years. This report follows the logic and age groups that the Centers for Disease Control (CDC) is using for the new Adolescent National Immunization Survey.

2.1.3 New Lot Number Inventory Tracking

Version 8.2 contains a new Vaccine Inventory system that monitors vaccine stock by lot number. When the pharmacist/manager enters a new lot number, they will input the expiration date, source (VFC, non-VFC), starting number of doses, and unused doses. The “doses unused” decreases each time an immunization of that lot number is entered into RPMS. The provider will get an alert notice if they enter an expired vaccine lot, or if the supply is low.

2.1.4 Forecasting for Rotavirus (v8.1*1 patch)

There is a new rotavirus forecasting option that forecasts rotavirus (rota-pent, RotaTeq®) vaccine for all infants at 2 months (or 6 weeks), 4 months, and 6 months.

2.1.5 Influenza vaccine routinely forecast for children 6 - 59 months (v8.1*1 patch)

The routine influenza forecasting for children was changed from 6 - 23 months to 6 - 59 months to match recommendations from the Advisory Committee on Immunization Practices.

2.1.6 Second dose of Varicella Forecast at 4 - 18 Years (v8.1*1 patch)

A second dose of Varicella vaccine is forecast starting at age 4 years 0 months. The minimal interval between the first and second doses is 3 months; however, a second dose is valid if there are at least 4 weeks between the first and second doses.

2.1.7 MMR maximum age 18 years (v8.1*1 patch)

No forecasting option will forecast MMR vaccine after 18 years 364 days, regardless of previous vaccine history.

2.2 Patient Menu

2.2.1 Meningococcal Conjugate 4-valent (meningCV4, Menactra) Forecasting

Meningococcal conjugate 4-valent (meningCV4, Menactra) forecasting is changed to forecast for all 11 to 15-year-olds.

2.2.2 New “Vaccine Unavailable” Reason for Contraindication

When entering a contraindication for a vaccine for a patient, the reason “Vaccine Unavailable” may now be entered. This reason will *not* prevent the vaccine from being forecast.

2.2.3 Due Lists

Due lists now display gender (M or F) and display Date of Birth in MM/DD/YYYY format.

2.3 Reports Menu

2.3.1 New Adolescent Report for 11 to 12, 13, and 13 to 17-year-olds.

The Adolescent Report lists vaccines administered at any date up to the Quarter Ending Date, regardless of age or interval administered. The report includes vaccines for children 11 years 0 days through 17 years 364 days who have had 2 clinical visits in the 3 years prior to the select date. The report lists immunization coverage rates for single antigens (e.g., HepB dose 1) and combinations (e.g., 3HepB, 2MMR, 1Var, 1Td/Tdap) for each age group.

2.3.2 New Adult Report “Quarter Ending Date” Parameter.

The Adult Report now offers a “Quarter Ending Date” parameter, which will collect and display all data for patients as of that date, including patient ages as of that date. This is the same as the Quarter Ending Date on the Quarterly and Two-Year-Old Reports.

2.3.3 Two-Year-Old Report

The Two-Year-Old Report has minor changes to single antigens and combinations monitored, including the addition of Rotavirus doses 1-3, addition of combinations 4DTaP 3Polio 1MMR 3Hib 3HepB 1Var, and 4DTaP 3Polio 1MMR 3Hib 3HepB 1Var 3Pne.

2.4 Manager Menu

2.4.1 New Vaccines

In version 8.2*1 patch, the Vaccine Table was updated with the following new CDC-recognized vaccines and their matching CVX codes: HPV-4 (62), Rota-pent (116), VZIG-IND (117), HPV-2 (118), Rota-mono (119), Pentacel (120), Zoster (121), Rota-NOS (122).

2.4.2 New Vaccine Forecasting Options

The forecasting options were changed. Versions 1, 3, 5, 7, 9 and 11 forecast the first vaccines series at 6 wks; the others beginning at 2 mths. All versions forecast Rotavirus at 2 (6 wks), 4, and 6 mths, HepA starting at 15 mths, and Influenza between Sept. and March for infants 6 - 59 mths. Option 11 does not forecast HepA or HepB in persons over 18 years, regardless of prior doses. All options forecast Tdap, MCV4, and HPV for adolescents per ACIP recs. For each of the options, the site can choose to use or not to use the 4-day grace period. The options are:

Option	6 Mths	12 Mths	15 Mths
1)	IPV	Hib, MMR, Pn, Var	DTaP
2) .....	....	Hib, IPV, MMR, Pn, Var	DTaP
3)	IPV	DTaP, Hib, MMR, Pn, Var	
4) .....	....	DTaP, Hib, IPV, MMR, Pn, Var.	
5)	IPV	Hib, MMR, Var	DTaP, Pn
7) Comvax	IPV	DTaP, HepB, Hib, MMR, Pn, Var	
9) Comvax	IPV	HepB, Hib, Var, MMR	DTaP, Pn
11)	IPV	Hib, MMR, Pn, Var	DTaP

Figure 2-1: Screenshot of vaccine forecasting options

2.4.3 Vaccine Forecasting Options for HPV Vaccine

A new prompt has been added to the process of selecting Forecast Options that offers the option to forecast HPV vaccine for either 11 to 18-year-olds or 11 to 26-year-olds.

2.4.4 The Edit Vaccine Fields Screen

The Edit Vaccine Fields screen now displays the Vaccine HL7/CVX Code and the Vaccine Group.

2.5 Other

2.5.1 Refusals Logged in PCC Refusals File

When a refusal of an immunization is entered as a Contraindication in the Immunization Package, the refusal will also be included in the PCC PATIENT REFUSALS FOR SERVICE/NMI File #9000022 and appear on Health Summaries that display the Refusals Component.

2.5.2 Positive PPD Results Automatically Create Contraindications

When the result for a PPD is recorded as Positive, a TST-PPD Contraindication is created automatically and appears on the Patient View Screen.

2.5.3 System records user who adds/edits and Immunization

For every immunization visit, the system records the user who last entered or edited that visit.

2.5.4 New Option Added: BI LOT NUMBER NON-MANAGER

A new option named “BI LOT NUMBER NON-MANAGER” is included, which is locked by the Key BIZ LOT NON-MANAGER. This “stand-alone” option is *not* connected to the rest of the RPMS Immunization Menu; instead, it may be assigned to any menu of any user for the purpose of adding and editing lot numbers in the Immunization Package. The option allows someone, such as a pharmacist, to add and maintain the Lot Number Inventory without gaining access to the rest of the Manager Menu in the Immunization Package.

2.5.5 Second Line for Street Address in Letters

In version 8.1*1 patch, the letters were enhanced to allow printing of a patient's second address line if they have one.

2.5.6 "Help" Actions at the Bottom of All Screens

Previously named "Explanation" actions and "?" responses have been renamed "Help" on all screens, in order to make help information more easily recognizable.

2.5.7 ImmServe Profile Provides More Detail on File Versions

The ImmServe Profile lists the specific file name of the host file being called. This will help to troubleshoot difficulties when sites have trouble configuring the ImmServe utility.

3.0 Orientation

3.1 Overview of the System

The Immunization Module provides a means to track and recall patients for immunizations, to provide feedback to the providers and administrators about immunization rates in their patient population, and to share immunization information with authorized agencies.

Any patient whose immunizations are to be forecast must first be registered in the main patient database through the RPMS Registration Module. Immunization data for all registered patients is stored along with all other patient medical information in the Patient Care Component (PCC) files. Registered patients will be automatically added to the Immunization registry as “Active” or “Inactive.” Children < 36 months of age residing in GPRA communities for the facility will automatically be activated. Other patients who are to be tracked for immunizations may be made active in the “Immunization Registry,” which is a subset of all registered patients. Active patients in the Immunization Register are those whose immunizations are tracked at the site. This allows healthcare staff to focus on Active patients (young children and other special needs patients) and to change patients to Inactive status if they move or go to another provider.

The RPMS Immunization Module is composed of a Main Menu with three submenus, and options presented on each submenu. An option is selected by typing the name of the option or by typing the 3-character synonym that appears in the column to the left of the option name and then pressing the Return key. Options on the submenus are grouped by the type of function they perform. Several screens also have actions at the bottom of the screen, which perform various operations on the information presented on the screen.

Not all options and actions are available to all users. Some options and actions require special knowledge or display confidential information. These options may be locked with keys that are given only to certain staff, such as the Program Manager. It may be that not all of the options or actions described in this user manual appear on your screen, possibly because you have not been given the key to that particular option. If you have questions regarding locked options and actions, or questions in general regarding how to navigate through RPMS menus, please contact your Site Manager.

3.2 Menu System

The main entry point into the RPMS Immunization Module is the Immunization Menu option. (This option may also be the synonym “IMM.” Contact your computer

support staff for help in locating the Immunization Menu). The RPMS Immunization Main Menu provides the three main options, as illustrated in Figure 3-1.

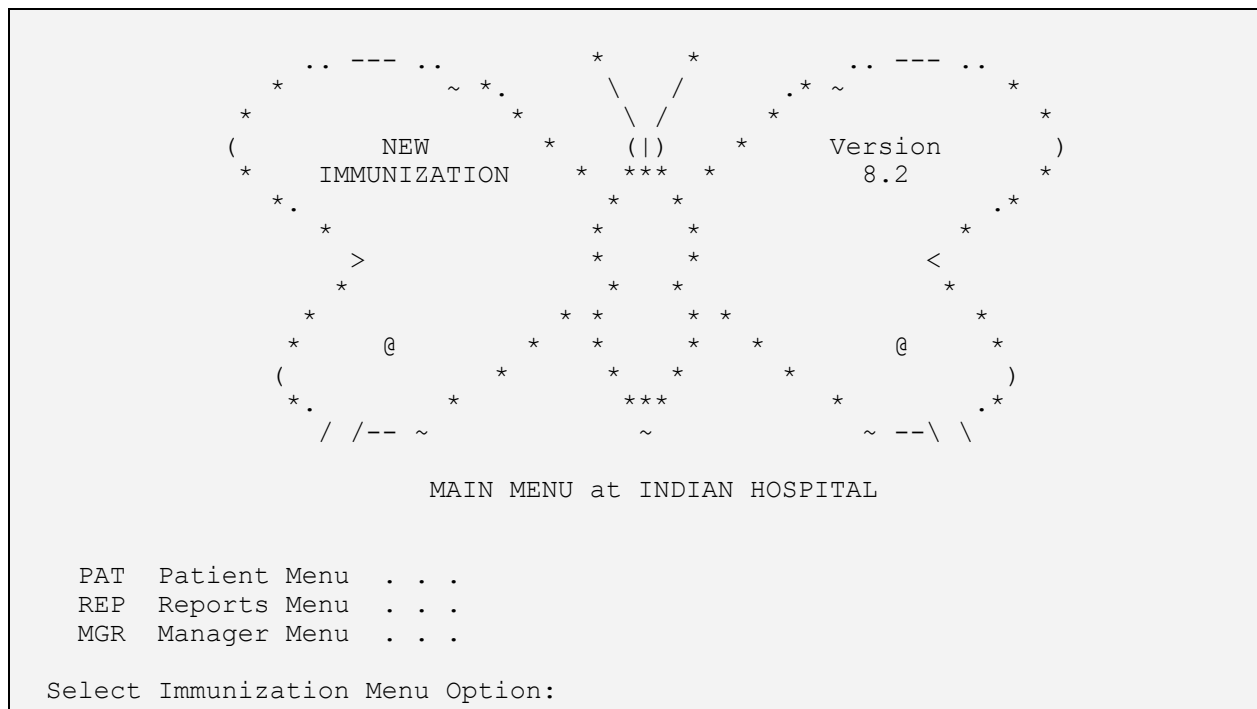


Figure 3-1: Main menu

3.2.1 Patient Menu

This menu presents three options used to manage the immunization information for patients:

In the Single Patient Record option, you have the ability to:

- Activate or inactivate a patient from the Immunization Register
- Enter, edit, or delete current or historical immunizations or skin tests
- Enter, edit, or delete immunization adverse events or contraindications
- View a more complete immunization history and future forecast (ImmServe Profile)
- Print a Health Summary or Official Immunization Record of a patient
- Print a Due Letter

The Print Individual Patient Letter option allows you to view and print any of the customized letters that have been set up (including the Official Immunization Record) for a patient.

In the Patient Lists and Letters option you can select various groups of patients by Age Range, Active Status, Community, Immunizations Received, Lot Numbers, and more. You can also print either a master list of the group patients or send a selected letter to the group of patients.

3.2.2 Reports Menu

This menu is used to generate the following standard reports:

- Adolescent Immunization Report – Presents immunization rates for patients 11 years 0 days through 17 years 364 days who have 2 clinical visits in the past 3 years.
- Adult Immunization Report – Presents immunization rates for patients over the age of 50 and over the age of 65.
- Quarterly Immunization Report – Presents age-appropriate immunization rates in 3 to 27-month-old Active children.
- Two-Yr-Old Immunization Rates – Presents age-specific immunization rates for 19 to 35-month-old Active Children, including the 4-3-1-3 rate (4DTP, 3polio, 3Hib, 1MMR) used for national Year 2010 Objectives.
- Vaccine Accountability Report – Presents doses administered for a given time period by age group and series.

3.2.3 Managers Menu

Managers use this menu portion of the software to perform such functions as adding and editing Form Letters, editing Site Parameters, re-standardizing the Vaccine Table, and exporting immunizations in flat ASCII Text. The Managers Menu is locked and is only available to those who hold the Manager Key.

3.3 Menu Diagram

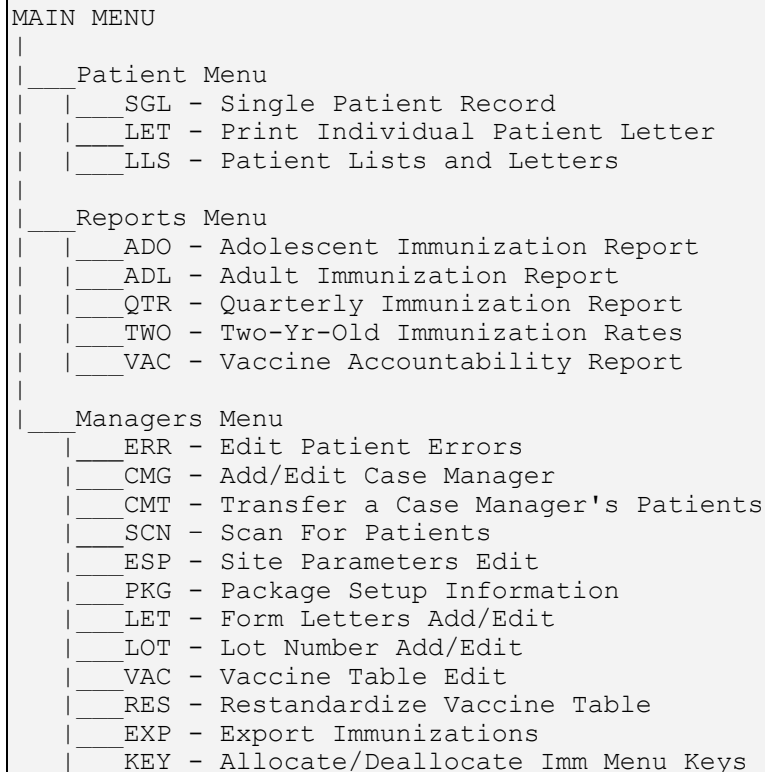


Figure 3-2: Diagram of main menu

3.4 Case Managers and the Program Manager

A **Case Manager** is a user of the RPMS Immunization Module who is responsible for managing patients. This can include immunization tracking and recall, entering or editing patient data, selecting appropriate letters, scanning for delinquent needs, and more. Every patient in the RPMS Immunization Register should be assigned a Case Manager.

The **Program Manager** is the person chiefly responsible for the setup and operation of the RPMS Immunization Module at a given site. This person works with the computer Site Manager on the technical aspects of the software, and performs maintenance tasks that require a more detailed understanding of the software than is required of Case Managers. At small sites, the Program Manager may also be the only Case Manager. (This individual is assigned the BIZ MANAGER Key by the Site Manager).

3.5 ImmServe Forecasting Program

Indian Health Service is contracting with a company, Medical Decision Associates, for use of their rule-based software, ImmServe, to evaluate immunization histories and determine due dates. ImmServe contains immunization logic for childhood and adult immunizations, except influenza and pneumovax (forecast by RPMS). It can be customized for different immunization schedules. ImmServe will be refined as immunization logic evolves or new vaccines and vaccine combinations are added. See Appendix C: ImmServe for additional information.

3.6 Conventions in the Software and Manual

The Resource and Patient Management System (RPMS) has established certain terms and operating procedures (conventions) for the Immunization Module. The following is a brief discussion on those conventions, knowledge of which will enable you to learn how to use the system quickly. As you read the following explanations, refer to your keyboard. This will insure that you have correctly identified each of the keys and command functions.

3.6.1 The Return Key

At many points in this manual you will be instructed to type some letters and press the Return key. The Return key refers to the key on your keyboard marked with the word `Return` or `Enter`. (On electric typewriters, it was the carriage return key). “Press the Return key” and “press the Enter key” are synonymous commands. Most PC computer keyboards have an Enter key rather than a Return key. Whenever you see [RET] or the Return key, simply press the Return or Enter key.

3.6.2 Double Slash (//)

Frequently, the software will ask you a question, followed by a prompt, followed by two slashes (//). The answer displayed in front of the two slashes is the default answer for that question. Pressing the Return key selects the default answer (this is done so that you do not have to type it out). If you do not want to take the default answer (or if no default answer is presented with double slashes), simply type in your response and then press the Return key. If a prompt has a default, but you want the answer to be blank, you can leave an answer blank by deleting the default or typing @ at the default prompt.

3.6.3 Screenshots

Figure 3-3 shows an example of a screenshot or screen capture.

IMMUNIZATION v8.2	* PATIENT MENU *	Site: DEMO MED CTR
	=====	User: USER, MARTHA
SGL Single Patient Record		
LET Print Individual Patient Letter		
LLS Patient Lists and Letters		
Select Patient Menu Option: PAT Patient Immunization Record		

Figure 3-3: Sample screenshot

When you see boldface type in a screenshot, it indicates a user action. After every entry that you type, you must press the Return key to create the entry. If the screenshot displays only the two double slashes (//) without any boldface/italic type, simply press the Return key without entering anything.

3.6.4 On-line Help

On-line help is available for most menu options and data entry prompts. Typing a single question mark (?) at the data entry prompt produces instructions for entering requested data. Typing two question marks (??) causes the system to display a more complete message. Some prompts display a list of available choices. If at any time you are not sure how to answer a particular question, or if you want to know more about the menu choices, you may type a single question mark (?) and more information will be displayed.

3.6.5 Backspace and Arrow Keys

The Backspace key moves the cursor to the left erasing characters as it moves. The Up and Down arrow keys move you up and down fields. The Left and Right arrow keys generally are not used. If you are having problems with these keys, check with your Site Manager.

3.6.6 The Up-Hat (^)

The up-hat, also known as the caret (^) (Shift+6), is a special control character. Use it to exit from a particular activity or data entry sequence. Typing the up-hat (caret) at any prompt will usually take you back to the proceeding prompt or menu level. It can also be used to exit from long data displays, such as vendor lists, that usually involve many screens.

Activate the up-hat by pressing the Shift key and the 6 key, located at the top of the typewriter keyboard. Note that pressing the Shift key and the 6 key on the adding machine-like keypad will not create a ^ character.

3.6.7 The “Select Device:” Prompt

Whenever the software is about to display a list or report, it will display the “Select Device:” prompt. In order to send the report or list to a printer, enter a printer name or number. In order to display the report or list on your screen, type **HOME** (or 0). For help in answering the “Select Device:” prompt, please contact your Site Manager.

Some reports will allow you to type **Q** (for Queue) at the “Device:” prompt. This enables you to send a report to a printer, and then returns you immediately to your screen while the report is printing, rather than waiting for the report to finish before returning you to your screen. This is a good idea if the report you are running typically takes a long time to run (search) or print. After typing **Q**, the system displays the “Queue To Print On Device:” prompt. At this point, you enter the name of the printer on which you wish to print the report.

3.7 ListMan Screen Displays

The RPMS Immunization Module v8.2 makes extensive use of ListMan screens to display information and to provide a means of taking various actions on the information presented. Figure 3-4 shows a typical ListMan screen:

PATIENT VIEW (IMM v8.2)		Sep 15, 1998 16:52:30		Page: 1 of 2	
Patient: DEMO,PATIENT				DOB: 01-May-1998 4 months)	
Chart#: 00-00-54 at UNSPEC MED CTR				Inactive Female M HBsAg: UNK	
#	Immunization History			Immunizations DUE on 01/27/2004	
1	03/27/03	DTaP (PEDIARIX)	unsp	Td-ADULT past due	
2	03/27/03	IPV (PEDIARIX)	unsp	Last Letter: None	
3	03/27/03	HEP B PED (PEDIARIX)	unsp		
4	11/17/03	*VARICELLA	unsp		
		-INVALID--EXPIRED-			
ADDITIONAL PATIENT INFORMATION					

Case Manager.....: AVRITT,RALPH					
+ Scroll down to view more. Type ?? or Q to QUIT.					
A	Add an Immunization	D	Delete a Visit	P	Patient Edit
S	Skin Test Add	I	ImmServe Profile	C	Contraindications
E	Edit a Visit	H	Health Summary	L	Letter Print
Select Action: Next Screen//					

Figure 3-4: ListMan screen

ListMan screen displays include three areas that can be described as follows:

Header Area

The header area is a “fixed” (non-scrollable) area that displays the Screen Title and Patient Demographic Information (e.g., lines beginning with *Patient* and *Chart*).

List Area

This area scrolls (with the Up or Down Arrow keys) if there are more items than will fit on one page. It displays a list of items, such as “Immunizations” or “Date of Forecast” on which you can take action. If there is more than one page of items, the page number is listed in the upper right-hand corner of the screen (Page 1 of #).

Action Area

This screen section contains three elements – Message Line, Actions, and Action Prompt.

- **Message Line:** This line displays a plus (+) sign, a minus (-) sign, a string of periods (...), or an informational statement (e.g., Enter **??** for more actions). If you enter a plus sign at the action prompt, the display moves forward a page. If you enter a minus sign at the action prompt, the display moves back a screen. The plus, minus, and > signs are only valid actions if they are displayed on this message line.
- **Actions:** This section contains a list of actions. If a double question mark (**??**) is entered at the “Select Action:” prompt, a “hidden” list of additional actions is displayed.
- **Action Prompt:** At the “Select Action:” prompt, type the name or abbreviation of options and press the Return key to perform any of the following actions:
 - Browse through the list
 - Select items that need action
 - Take action against those items
 - Select other actions without leaving the option

3.7.1 Generic Actions

In addition to the Actions specific to the ListMan screen, the system provides generic “Hidden Actions” applicable to all ListMan screens. To view these generic actions, enter a double question mark (**??**) at the “Select Action:” prompt. The abbreviation for each action is shown in brackets following the action name, as illustrated in the following table:

Action	Description
Next Screen [+]	Move to the next screen (may be shown as a default)
Previous Screen[-]	Move to the previous screen
Up a Line [UP]	Move up one line
Down a Line [DN]	Move down one line
Shift View to Right [>]	Move the screen to the right if the screen width is more than 80 characters
Shift View to Left [<]	Move the screen to the left if the screen width is more than 80 characters
First Screen [FS]	Move to the first screen
Last Screen [LS]	Move to the last screen
Go to Page [GO]	Move to any selected page in the list
Re Display Screen [RD]	Redisplay the current screen
Print Screen [PS]	Prints header and portion of the list currently displayed
Print List [PL]	Prints the list of entries currently displayed
Search List [SL]	Finds selected text in list of entries
Auto Display (On/Off) [ADPL]	Toggles the menu of actions to be displayed/not displayed automatically
Quit	Exits the screen (may to shown as a default)

Figure 3-5: Table of generic actions and descriptions

3.8 ScreenMan Displays

RPMS Immunization Module v8.2 makes extensive use of ScreenMan to allow the editing of data relating to patients and their immunizations, skin tests, contraindications, etc.

Much like ListMan, ScreenMan displays header information in the top third of the screen, editable information in the middle third of the screen, and commands and help in the bottom third of the screen.

Figure 3-6 shows a sample of a ScreenMan display.

* * * ADD/EDIT IMMUNIZATION VISIT * * *			
Patient: DOE, FLORENCE		DOB: 05-Oct-1997 (20 months)	
Chart#: 00-00-04 at UNSPEC MED CTR		Inactive	Female
Date: MAR 27, 2003		Category: Ambulatory	
Vaccine: DTaP-Hep B-IPV		Lot#:	
Inj Site:	Vol: ml		
Location Type: IHS	Location: UNSPEC MED CTR		
Provider:	Reaction:		
VIS Date:	Dose Override:		
Exit	Save	Refresh	
Enter a command or '^' followed by a caption to jump to a specific field.			
COMMAND:		Press <PF1>H for help	

Figure 3-6: Sample screen of ScreenMan

ScreenMan Tips:

- Context sensitive help (messages relating to the particular prompt/question at which your cursor is resting) will be automatically displayed in the bottom third of the screen. Type **?** at any prompt to display more help at the bottom of the screen.
- In general, it is most efficient to press the Return key to move from one prompt to the next; however, you may move around the screen using the cursor keys.
- The key combination PF1-E will allow you to exit and save your data from any point on the screen without moving to the Command Line at the bottom. That is the most efficient method of exiting ScreenMan screens. (PF1-E means you press and hold the PF1 key and then press the E key.) PF1-Q allows you to exit *without* saving your work.

Note: PF1 refers to the PF keys on a computer terminal. If you are using a PC, then simply substitute the F1 key in place of the PF1 key. See your Site Manager for support with this.

4.0 Patient Menu

The Patient Menu is a submenu of the Main Menu (Figure 4-1). The Patient Menu provides access to the basic tracking and recall functions of the Immunization software.

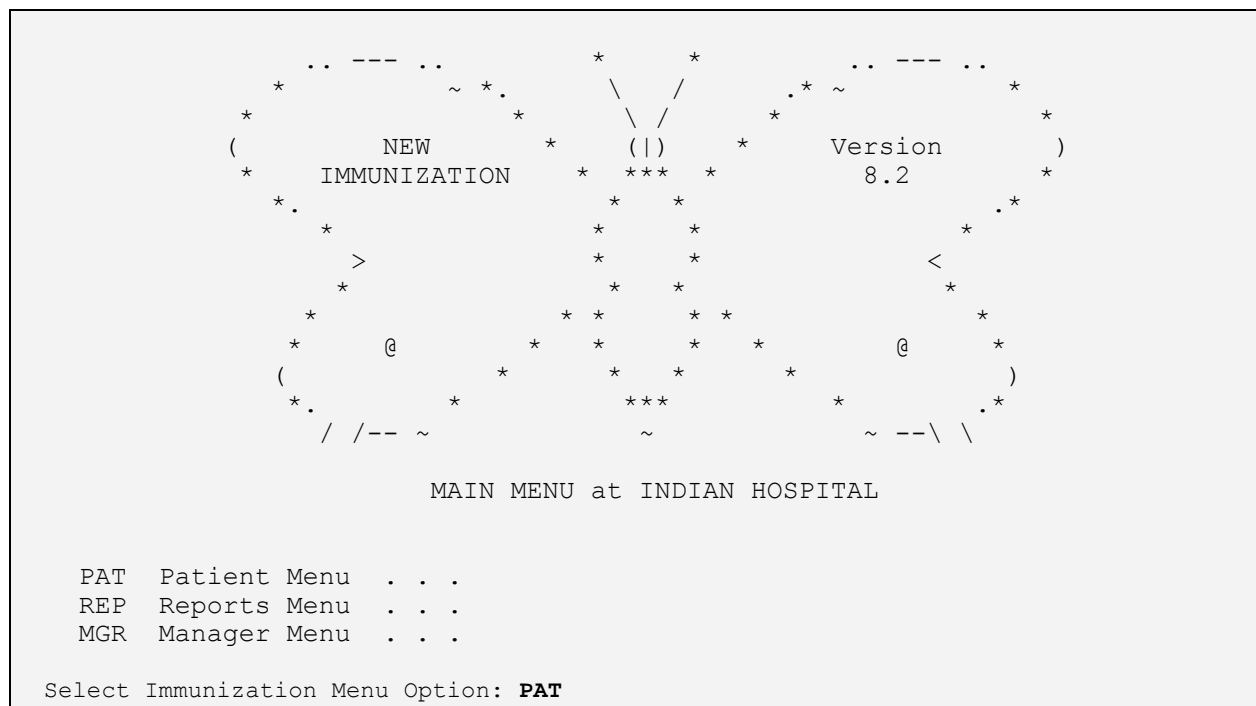


Figure 4-1: Main menu

- To select the Patient Menu (Figure 4-2), type **PAT** at the “Select New Immunization Menu Option:” prompt. The following options display:
 - SGL Single Patient Record
 - LET Print Individual Patient Letter
 - LLS Patient Lists and Letters

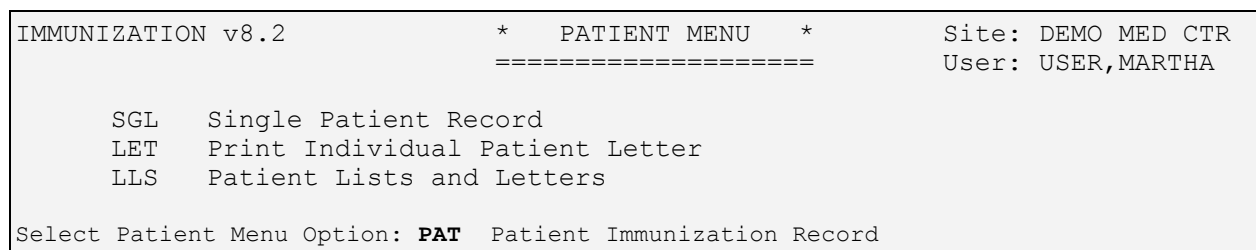


Figure 4-2: Patient menu

4.1 Single Patient Record (SGL)

With this Patient Menu option you can view the immunization history of an individual patient and perform any of the following functions for that patient:

- Add or edit immunizations
- Add or edit skin tests and results
- Delete wrong immunization information
- Update contraindications, refusals, or history of chicken pox
- Update patient registration information
- View a health summary (including immunization health summary)
- Print a due letter and Official Immunization Histories
- View the immunization profile for any patient in the Immunization register

Selecting the Single Patient Record option

To select a Single Patient Record, type **SGL** at the “Select Patient Menu Option:” prompt. Type the patient’s name, chart number, or DOB at the “Select Patient Name:” prompt (Figure 4-3).

PATIENT VIEW (IMM v8.2)		Jan 31, 2004 18:28:51		Page: 1 of 3	
Patient: DEMO,PATIENT			DOB: 01-May-1998 (4 months)		
Chart#: 00-00-54 at UNSPEC MED CTR			Inactive Female M HBsAg: UNK		
#	Immunization History			Immunizations DUE on 15-2ep-1998	
1	02/15/03	PEDVAXHIB	UNSP	DTaP	past due
2	05/05/03	*PEDVAXHIB	UNSP	IPV	past due
		-INVALID--DEFECTIVE-		PNEUM-CONJ	past due
		(Arthritis or Arthralgias)		INFLUENZA	due
3	05/29/03	PEDVAXHIB (COMVAX)	UNSP		
4	09/05/03	PEDVAXHIB (COMVAX)	UNSP	Last Letter: None	
5	02/16/03	HEP B PED	UNSP	-----	
6	05/07/03	*HEP B PED	UNSP	* CONTRAINDICATIONS/REFUSALS *	
				HIBTITER: Anaphylaxis	
ADDITIONAL PATIENT INFORMATION					

Case Manager.....: AVRITT,RALPH					
Next Appointment : 01/04/04					
+ Scroll down to view more. Type ?? or Q to QUIT.					
A Add Immunization D Delete Visit P Patient Edit					
S Skin Test Add I ImmServe Profile C Contraindications					
E Edit Visit H Health Summary L Letter Print					
Select Action: Next Screen//					

Figure 4-3: Patient immunization record screen

Important Notes

- All patients called up under the “Single Patient Record” menu option will be automatically added to the Immunization Register if they are not already listed in it.
 - If the patient is over 18 years or if the user/clerk does not have the BIZ EDIT PATIENTS Key, then the patient is added with a status of Inactive and a reason of “Never Activated.”
 - If the patient is 18 years of age or younger, and the user/clerk has the BIZ EDIT PATIENTS Key, then the user/clerk is prompted to select a status.
 - If the patient is already in the Register and has a status of Inactive *but* is of an age less than 36 months, then user/clerk (if they have the BIZ EDIT PATIENTS Key) will be prompted to change the patient’s status to Active.
 - If the patient is deceased, he or she is automatically added with a status of Inactive and a reason of “Never Activated.”
- The line at the bottom of the Additional Patient Information section displaying Next Appointment will *only* appear if your site is running the RPMS scheduling package and *if the patient has a future appointment*.
- Patient ages throughout this module are determined by a count of months or years, just as birthdays are counted. That is, a patient is not 3 months old until the same date in the third month, regardless of how many days are in the intervening months.
- If a patient is recorded as “deceased” in the Registration Module, this will be displayed. Letters do not print for “deceased” patients.
- At the “Select Action:” prompt on most of the ListMan screens, you can type ?? to view the list of hidden actions.

Note: Cross reference Section 3.7.1, Generic Actions, for a description of actions.

4.1.1 Add Immunization (A)

With this action on the Patient View screen you can enter new or historical immunizations into RPMS, regardless of whether the patient is a child or adult, inactive or active, registered or not registered (Figure 4-4).

```

* * * ADD IMMUNIZATION VISIT * * *
Patient: DOE,JOHN                      DOB: 04-Feb-1976 (28 yrs)
Chart#: 00-00-05 at UNSPEC MED CTR      Active      Male
-----
Date: FEB 2,2004                        Category: Ambulatory
Vaccine: HIB (PRP-OMP)                  Lot#: 123456
      (PEDVAXHIB)
Inj Site: Left Thigh IM      Vol:.5 ml
Location Type: IHS      Location: UNSPEC MED CTR
Provider: DOCTOR,NURSE
VIS Date: DEC 16,1998
-----
Exit      Save      Refresh

Enter a command or '^' followed by a caption to jump to a specific field.

COMMAND:                                     Press <PF1>H for help      Insert

```

Figure 4-4: Add/edit immunization visit screen

The RPMS Immunization package is designed to include all the information required to be documented when immunizations are given. Each site that chooses to do direct data entry should require that all fields be completed.

Combination vaccines can be entered by name i.e., Comvax® or Pediarix™. There will not be any dose numbers. The site, route, and amount can be recorded in RPMS.

The categories for entries are as follows:

Ambulatory refers to outpatient or clinic visits (as opposed to inpatient) that occurred at the clinic or hospital where the Immunization software is being used.

Historical refers to immunizations given at other facilities (not the current facility where the software is being run) and to visits that occurred in the past and of which not many details are known. This is offered in order to complete a patient's immunization history as much as possible, while recognizing that all of the information may not be available. If a date other than today is entered, the category automatically defaults to Historical. If indeed an Ambulatory visit is being entered belatedly, the category can be changed back to Ambulatory.

Note: Ordinarily, when entering immunizations and the category is Ambulatory, only the current “Active” vaccines are available for selection (as determined by the Manager under the Vaccine Table Edit option). However, when the category is Historical, all

vaccines, both Active and Inactive, are available, in order to allow the entering of a complete history.

Caution: Care should be taken when entering Ambulatory immunizations at the current facility a day or more later than the actual visit. If the date is other than today, the category will automatically default to Historical and *many Inactive (and inappropriate) vaccines will be available for selection*. Designating a visit as Historical relaxes many of the safeguards put in place for complete and accurate data entry (checks for Active vaccines, Lot Number requirements, duplicate visit checks, etc.).

If the immunization being entered is not truly Historical, but merely an Ambulatory visit being entered a day or two late, then it is very important to *change the Category back to Ambulatory*. This will help to ensure accurate data entry and avoid difficulties and confusion later.

Inpatient refers to those immunizations given while a patient is admitted to the current hospital/facility, where the software is in use.

	Ambulatory	Historical	Inpatient
Date	Today's date – the default	Enter the date of the immunization	Today's date – the default
Vaccine	Enter vaccine name – can use name of combination – Comvax® or Pediarix®	Enter vaccine name – can use name of combination – Comvax® or Pediarix®	Enter vaccine name – can use name of combination – Comvax® or Pediarix®
Lot #	Enter the Lot # on the vial. Remaining doses and Expiration date will automatically appear	Leave blank as unknown	Enter the Lot # on the vial
Injection Site	Enter site	Leave blank as unknown	Enter site
Volume	Accept default unless different	Delete the default - @ sign	Accept default unless different
Location Type	Accept default (IHS)	Accept default (IHS) or change to other (O) if not an IHS location	Accept default (IHS)
Location	Accept default – your facility	Enter location immunization given	Accept default – your facility
Provider	Accept default – change if person entering not the same as person who gave immunization	Delete default - @ sign (shift 2)	Accept default – change if person entering not the same as person who gave immunization
VIS Date	Accept default	Delete default - @ sign (shift 2)	Accept default

	Ambulatory	Historical	Inpatient
Category	Accept default - Ambulatory	Accept default – Historical	Change to Inpatient

Figure 4-5: Table of immunization entry categories

Shortcut Keys

- Exit and Save – press F1 and then E.
- Exit and not save – press F1 and then Q.
- Delete a specific entry – type @.
- To accept the last IHS location entered if different than the default – press the spacebar and then the press the Return key.

Lot Number

The manager sets a default lot number for each vaccine in the Manager Menu, and chooses whether to make Lot Number required or optional.

Note: Cross reference Section 6.0 Manager Menu

If you select a duplicate lot number, you will get one of the following messages, depending upon whether or not you hold a Manager level security key:

- **For users who do not hold the BIZ MANAGER Key**
You have selected a "Duplicate Lot Number." This means that the lot number exists at least one other time in the lot number file, and the Immunization Visit you are entering cannot be stored until the duplicate has been resolved.

Only a person with access to the Immunization Manager's menu can resolve duplicate lot numbers. Since you do not have this access, you should contact your Immunization Program Manager or your Computer Site Manager for support with this problem. In the meantime, you may finish entering the Immunization Visit without a lot number, and add the lot number to this visit after the duplicate has been resolved. Or you can quit without adding the visit at this time.
- **For users who hold the BIZ MANAGER Key**
You have selected a "Duplicate Lot Number." This means that the lot number already exists in the lot number file, and the Immunization Visit you are entering cannot be stored until the duplicate has been resolved. Refer to the Lot Number Add/Edit option on the Manager Menu for resolution of duplicate lot numbers.

Location Type

Location Type is used to designate whether a location is IHS (any location that has a recognized IHS Facility Location Code), or OTHER (unofficial locations, such as private doctors without an IHS Facility Location Code). All "OTHER" locations point to one Location Code which is set in Section 6.4.

Location

If the location is an official IHS location, you must enter the correct code. If you chose "OTHER" for Location Type, you may use non-official locations (e.g., Dr. Ray Beck).

Reaction

Choose from the following list:

- Anaphylaxis or Collapse
(Contraindicates next dose)
- Arthritis or Arthralgias
- Convulsions
- Fever>104
- Lethargy
- Swelling>4cm

Vaccine Information Statement (VIS) Date

Each provider is required to give a parent/patient a VIS for each vaccine administered and document the Date of Publication as evidence of Informed Consent. You can set a default VIS date in the Vaccine Table Edit option, Section 6.9.

4.1.2 Skin Test Add (S)

With this action on the Patient View screen (Figure 4-6) you can enter dates for placement of new or historical skin tests (PPD, Monovac, Tine) and the results of the skin tests in the same manner in which you add immunizations.

* * * ADD/EDIT SKIN TEST VISIT * * *			
Patient: DEMO, PATIENT		DOB: 16-Mar-1999 (6 months)	
Chart#: 00-00-99 at UNSPEC MED CTR		Active	Male
Date: FEB 15, 2003		Category: Ambulatory	
Skin Test: CHLAMYDIA	Site: LEFT FOREARM	Volume: .1 ml	
Result: NEGATIVE	Reading: 13mm	Date of Reading:	

Location Type: IHS	Location: UNSPEC MED CTR
Skin Test Provider:	
Skin Test Reader:	
COMMAND	Press <PF1>H for help Insert

Figure 4-6: Add/edit immunization visit

Use the procedure outlined in Section 4.1.1. Add Immunization (A) to add a skin test. To display a list of skin tests type **??** at the “Skin Test:” prompt. The result of the skin test will be positive or negative. The reading is the “induration” in *mm* (e.g., 0, 02, or 12mm). Identify the skin test provider and reader.

4.1.3 Edit Visit (E)

With this action on the Patient View screen you can change wrong vaccine or skin test information in RPMS, including wrong dates, vaccine, etc. The screens and actions are identical to those described in Section 4.1.1 Add Immunization (A), except you have two additional choices when editing a vaccine:

	Ambulatory	Historical	Inpatient
Reaction	Use ?? to see choices – enter if there was a reaction to a vaccine.	Leave blank – will probably not know on historical – enter if known.	Use ?? to see choices – enter if there was a reaction to a vaccine.
Dose Over-ride*	Use to force a dose valid (if given a day or so early but won't affect school) or invalid (due to expired vaccine, etc). Use ?? to see choices. Use only with provider approval.	Use to force a dose valid (if given a day or so too early but won't affect school) or invalid (due to expired vaccine, etc). Use ?? to see choices. Use only with provider approval.	Use to force a dose valid (if given a day or so too early but won't affect school) or invalid (due to expired vaccine, etc). Use ?? to see choices. Use only with provider approval.

Figure 4-7: Additional choices when editing a vaccine

Note: Using dose over-ride affects the forecasting – it will ignore invalid doses and will count forced valid doses.

Short Cut Keys

- Exit and Save – press **F1** and then **E**.
- Exit and not save –press **F1** and then **Q**.
- Delete a specific entry – type **@**.
- To accept the last IHS location entered if different than the default – press the spacebar and then the Return key.

4.1.4 Delete Visit (D)

With this action on the Patient View screen shown in Figure 4-8, you can delete a complete immunization visit or a skin test that was erroneously entered (e.g. a duplicate immunization record). The screen below displays an example of the delete confirmation screen, once you have chosen a visit to delete:

```

Immunization v8.2          *  DELETE AN IMMUNIZATION VISIT  *

Do you really wish to DELETE this Visit?
  Patient: DOE,DIANA      Chart#: 99977
  26-Mar-1999 @12:00  COCCI   Negative  2 mm      Dr. Black

Enter Yes or No? NO//
  
```

Figure 4-8: Delete an immunization visit screen

4.1.5 ImmServe Profile (I)

By using the ImmServe Profile action on the Patient View screen, you can view an in-depth immunization forecast for any patient in the Immunization Register, including explanations of errors in the Immunization History (e.g., DTaP 1 because it was given before 42 days of life). Refer to the Package Information (PKG) option on the Manager Menu or to Appendix C: ImmServe for more information about ImmServe forecasting.

Figure 4-9 displays an example of the ImmServe Profile screen:

```

Patient:
PATIENT, JANE      DOB:27-APR-1998 (7m) Chart#:11-11-70 at UNSPEC MED CTR
Active           Female
-----
ImmServe (Release 5.1, Rule Set 3.0, Version: IHS_1)
  Case run Fri Oct  9  09:11:47  1998
INDIAN HEALTH SERVICE Report Writer 1.0
Requested Numbered Doses Processing Method: HIGHEST NUMBERED DOSE
Requested Series Forecasting: HepB DTP Td/B Hib OPV/IPV MMR/Me
  HepA Var
Series Forecasted: HepB DTP Td/B Hib OPV/IPV MMR/Me HepA VAR
Requested Series Failure Modes: None.
-----
Case:  DOE, JANE  Chart#: 10-45-60
Date used for forecast: 10/9/98
Date of birth: 4/27/1998
Contraindicated vaccines: Varicella (Hx of chicken Pox)
Other facts: Mother HBsAg status unknown

DtaP 1: 6/6/1998 HbOC 1: 6/6/1998
The following immunizations are due on 10/9/98
  HepB 1 (past due)
  DtaP 2 (past due)
  
```

```

HbOC 2 (past due)
Polio 1 (past due)
The following immunizations will be due:
HepB 2, on or after 11/9/1998
DtaP 3, on or after 12/9/1998
HbOC 3, on or after 12/9/1998
Polio 2, on or after 12/9/1998
The following vaccine series are either complete or no longer relevant for
this case:
Hib          VAR

```

Figure 4-9: ImmServe profile screen

4.1.6 Health Summary (H)

With this option on the Patient View screen you can view or print a health summary for the patient. You can select from a number of health summaries including Immunization, Adult Regular, Cancer, CHR, Dental, Diabetes Standard, Mental Health/Social Services, Patient Merge (Complete), Pediatric, Problem List, and Sample. A sample Health Summary screen is shown in Figure 4-10.

```

***** CONFIDENTIAL PATIENT INFORMATION -- APR 14,1999  8:36 AM  [JEC] *****
DOE,PATIENT #99999  (IMMUNIZATION SUMMARY)  pg. 1 *****

DOE,PATIENT      DOB: AUG 8,1982
INDIAN HOSP.     HEALTH RECORD NUMBER: 99906
5 PALM DR, MYTOWN, NM  87999

----- IMMUNIZATIONS -----
IMMUNIZATION FORECAST:

    HEP B                past due

    DTP                   03/07/91  18 mths UNSPEC Med Ctr
    DTP                   04/07/95   5 yrs  UNSPEC Med Ctr
    Td-ADULT              08/09/02  12 yrs  UNSPEC Med Ctr          U0520AA
+   Enter ?? for more actions                                     >>>
+  NEXT SCREEN            -   PREVIOUS SCREEN          Q   QUIT
Select Action: +//

```

Figure 4-10: Health summary screen

4.1.7 Patient Edit (P)

With this action on the Patient View screen (Figure 4-11) you can edit a patient record in the following ways:

- Change a patient status in the Active Immunization register to Inactive.
- Add or edit a case manager.
- Edit Mother's HBsAg status.

- Forecast Influenza/Pneumo or Disregard forecast based on Risk Factors.
- Add the name of a parent or guardian for due letters.

```

* * * EDIT PATIENT CASE DATA * * *

Patient Name: PATIENT,PATIENT (46 years)          Chart#: 99999
Street: 123 ANYWHERE                             Patient Phone: Unknown
City/St/Zip: ANYWHERE, AK 99503

(The above data may be edited through Patient Registration)
Case Manager: YOUR NAME
Parent/Guardian:
Other info:

Inactive Date: 12/21/98 Inactive Reason: Moved Elsewhere
Moved to/Tx Elsewhere: Free text may be entered here.

Forecast Influenza/Pneumo: Both
Mother's HBsAg Status: Unknown

COMMAND:      Press <PF1>H for help   Insert
```

Figure 4-11: Patient edit screen

4.1.7.1 Inactivating Patients

In order to inactivate a patient, you will need to select a date of inactivation, and select a reason for inactivation from a drop down menu. Reasons include:

- Moved elsewhere
- Treatment elsewhere
- Deceased
- Ineligible

Moved to/Tx Elsewhere

Add free text for the location where the patient moved or provider/facility name where the patient is getting care. Patients who were inactivated prior to Immunization v8.2 will have "previously inactivated" or "never activated" in the reason for inactivation field.

Important Notes

- Entering a date in the Inactive field will flag the patient as Inactive as of that date. Several reports and letters allow the user to specify whether to include Inactive patients or only Active patients.

Note: If the patient is "inactivated" in the RPMS Patient Registration package, it will not be possible to select and edit the patient in the Immunization package (for the given site). This can lead to a problem wherein a patient counts as delinquent for immunizations, but cannot be edited or even inactivated in the Immunization

package. Therefore it is important to inactivate the patient in the Immunization package *first* and then inactivate the patient in the Patient Registration package.

- If the Parent/Guardian field is left blank, the due letters are addressed to "Parent/Guardian of" followed by the patient name.
- Use the Forecast Influenza/Pneumo field to add the patient to the group that is forecast for Influenza every year between September 1 and March 31 and/or forecast for Pneumo. Select whether Normal (0), Influenza (1), Pneumococcal (2), or Both (3) vaccines should be forecasted for this patient. Leave it blank or enter Normal to forecast these vaccines only in later life (>65yrs). You may also select (4) Disregard Risk Factors in order to prevent this patient from being forecast for Influenza and Pneumo due to previous High Risk diagnoses in their record.
- If you enter HBsAg "positive," this status shows up each time you view the Patient's Immunization Record on the Patient View screen.

4.1.8 Contraindications (C)

With this action on the Patient View screen (Figure 4-12), you can add or delete contraindications for specific vaccines. The reasons for contraindication include:

Anaphylaxis	Immune Deficient
Carrier (e.g. HBsAg Carrier)	Lethargy/Hypotonic Episode
Convulsion	Neomycin Allergy
Egg Allergy	Parent Refusal
Fever > 104	Patient Refusal
Hx of Chicken Pox	Persistent Crying
Immune	Positive TB Skin Test (PPD only)
Immune Deficiency	Vaccine Unavailable

The following screen shows the Patient Contraindication screen, the point from which you add or delete the patient's contraindications.

CONTRAINED (IMM v8.2)		Apr 16, 1999 16:04:36	Page: 1 of 1
Patient: DOE, PATIENT		DOB: 23-Jan-53 (46 years)	
Chart#: 99999 at UNSPEC MED CTR		Active	Female
#	Vaccine	Reason	Date Noted
1	VARICELLA:	Hx of Chicken Pox	10-Dec-1998
Enter ?? for more actions.			
A	Add Contraindication		E Explanation
D	Delete Contraindication		
Select Action: Quit//			

Figure 4-12: Contraindications screen

The *top* of the screen lists the patient's demographic information, most of which is edited through the RPMS Patient Registration.

The *middle* of the screen lists any Contraindications to vaccines that the patient may have, along with the reason for the contraindication and the date it was noted.

The *bottom* of the screen provides the actions to add or delete Contraindications, or to view this explanation.

Contraindications added for the patient here will cause the contraindicated vaccine to be eliminated from the forecast (in the right column of the main Patient View screen). However, if the reason chosen for a Contraindication is "Patient Refusal," the vaccine will *not* be eliminated from the forecast. If you choose "Immune Deficiency," then MMR, Varicella, OPV, and Flu-Nasal (all live vaccines) are automatically contraindicated.

Note: You may select TST-PPD INTRADERMAL (PPD) as the "vaccine." In this case, the only reason selectable will be "Positive TB Skin Test." This allows the system to display a contraindication to future PPD tests.

4.1.9 Letter Print (L)

The Letter Print action on the Patient View screen (Figure 4-13) allows you to print any form letter (Due Letter, Official Immunization Record, etc.) for the given patient. The form letters are set up by the Site Manager. There should be at least one Standard Due Letter and one Official Immunization Record. At the prompt, type the name of the letter or ? to select from a list of form letters.

DEMO Clinic 123 MAIN Anywhere, Alaska 12345 (123) 456-7890	
30-Mar-1999	Date of Birth: 01-Jan-1900 (6 Months)
Chart#: 99960	Parent/Guardian of
DEMO PATIENT 100 5TH ST. Anywhere, Alaska 12345	
Dear Parent or Guardian:	
Your child, DEMO, is due for immunizations. According to our records, the following immunizations have already been received:	
CARLA will be due for the immunizations listed below:	
HEP B Td-ADULT	
If you feel our records are not correct, please notify us so that we may make the corrections to update our records. Otherwise, please come to our clinic. We would surely appreciate you bringing your own personal immunization records so that we can update our records as well as your records!	
23-April-1999 at UNSPECIFIED MEDICAL CENTER	
Sincerely,	
Dr. ADAM ADAM	
Printed: 30-Mar-1999 @12:26	Case Manager: DEMO USER

Figure 4-13: Letter print screen

4.2 Print Individual Patient Letter (LET)

The Patient Menu option (Figure 4-14) allows you to display or print any one of a list of form letters for a patient. This option is identical to the Action described in Section 4.1.9, however the option here is offered entirely by itself and not in conjunction with all the other Patient Edit actions. This provides clerical staff with the ability to send letters to patients without giving the clerical staff access to edit patient data.

IMMUNIZATION v8.2	* PATIENT MENU *	Site: UNSPEC MED CTR
	=====	User: USER, DEMO
SGL Single Patient Record		
LET Print Individual Patient Letter		
LLS Patient Lists and Letters		
Select Patient Menu Option: LET Print Individual Patient Letter		

Figure 4-14: Patient menu

This option displays prompts for selection of the patient, selection of the Form Letter, and selection of the device on which the letter will be printed. At the “Form Letter Prompt:” type the name of the letter or ? to select from a list of form letters. Figure 4-15 shows an example of an Official Immunization Record for an individual patient.

```

                                CHILDHOOD OFFICIAL IMMUNIZATION RECORD
                                UNSPECIFIED MEDICAL CENTER
                                801 Vassar
                                Anywhere, Alaska 12345
                                (123) 256-4000

30-Mar-1999                                Date of Birth: 01-Jan-1999 (2 months)

Parent/Guardian of
DEMO PATIENT
100 Main Street
ANYWHERE, ALASKA 12345

Our records show that DEMO has received the following immunizations:

      Immunization      Date Received      Location
      -----      -
      1-DtorP          26-Mar-1999      UNSPECIFIED Medical Center
      1-Hib            26-Mar-1999      UNSPECIFIED Medical Center

If you feel our records are not correct, please notify us so that we may make
the corrections to update our records.

Sincerely,
Your Outpatient Nursing Department

```

Figure 4-15: Sample official immunization record

4.3 Patient Lists and Letters (LLS)

With this Patient Menu option (Figure 4-16) you can print a Due List, Master List, or various letters for groups of patients. You may print the list or group of letters for a given forecast date, age range, patient group, a community or group of communities, or one or more case managers. This option gives you the ability to search for and print lists for a specific lot number(s) or a specific vaccine type. Note that you can accept all default settings or change specific ones as necessary.

```

IMMUNIZATION v8.2          *   PATIENT MENU   *           Site: UNSPEC MED CTR
                        =====                User: DEMO, USER

SGL  Single Patient Record
LET  Print Individual Patient Letter
LLS  Patient Lists and Letters

Select Patient Menu Option: LLS      Due Lists and Letters

```

Figure 4-16: Patient menu

The Immunization Lists and Letters screen (Figure 4-17) contains a header at the top, a numbered list in the center, and actions at the bottom of the screen.

IMMUNIZATION v8.2	Sep 15, 2007 16:53:03	Page: 1 of 1
<u>IMMUNIZATION LISTS AND LETTERS</u>		
1- Date of Forecast/Clinic:	9/15/07	
2- Age Range in Months:	1 - 72 Months	
3- Patient Group:	Patients DUE for Immunizations.	
4- Communities:	ALL	
5- Case Managers:	ALL	
6- Immunizations Received:	ALL	
7- Immunizations Due.:	ALL	
8- Lot Numbers:	ALL	
9-Additional Information. . . .:	Forecast	
10-Order of Listing.:	by Patient Age	
11-Include Deceased.:	No	
Select a left column number to change an item		
<i>List of Patients</i>	<i>Print Due Letters</i>	<i>Help</i>
Select Action: Quit//		

Figure 4-17: Immunization lists and letters screen

On the Patient Menu, type **LLS** at the “Select Patient Menu Option” prompt. The system displays the Immunization Lists and Letters screen with a “Select Action:” prompt.

4.3.1 Overview of Patient List and Letters Parameters

The Immunization Lists and Letters screen provides a single point from which to view Due Lists and Master Lists, and to print Due Letters.

There are 12 parameters on the screen that you may change in order to select for a specific group of patients (see Immunization Lists and Letters screen). To change a parameter, enter its left column number (1-11) at the prompt on the bottom of the screen. Type **?** at any prompt where you would like help or more information on the parameter you are changing.

Once you have the parameters set to retrieve the group of patients you want, select **L** to print or view the List of Patients, or select **P** to Print Due Letters.

In building this list to view or print, the computer must examine every patient in the Immunization Register. For this reason, on some computer systems it may take some time before the list appears.

4.3.2 Specifying Parameters for a List or Letter

This section will describe how to adjust each parameter in order to specify the kind of information included in a selected list or letter.

Date of Forecast/Clinic (1)

The Forecast Date or Clinic Date is the date that will be used for calculating which immunizations are due for patients. For example, if you choose today, the letter or report will list the immunizations for which patients are due today. If you choose a future date (the date of a clinic), the letter or report will list immunizations due on that future date.

Note: If you select a Forecast Date in the future, some patients may appear as Past Due for that date in the future, even though they are not Past Due today.

Age Range in Months (2)

Enter the patient Age Range in months, using a dash in between the limits of the range (e.g., 6 - 23). The Age Range will include patients whose ages span from the minimum age to one day less than a month after the maximum age. For example, 6 - 23 includes patients 6-months-old, up to, but not including 24-months-old. You may also enter a single age, such as 12, to select for only 12-month-old patients. Enter **ALL** if you wish to simply include patients of *all* ages. Or, if you wish to select a range in years, enter **Y** to change from months to years.

Patient Group (3)

This item allows you to select the group(s) of patients to include in the list. You may include any combination of the descriptors listed from 1-6 by entering the numbers separated by commas (for example: 1, 3, 4). Due or Past Due, if selected alone, include only Active patients. Selection of #1, DUE, automatically includes #2, Past Due, as well. Note that Search Template cannot be combined with any other group.

```

IMMUNIZATION v8.2          *    PATIENT GROUP    *

Please select the Patient Group for this list:

1- DUE.....(Patients Due for Immunizations)
2- PAST DUE.....(Only Patients who are PAST Due)
3- ACTIVE.....(List of Active Patients)
4- INACTIVE.....(Inactive Patients, by date if desired)
5- AUTOMATICALLY ACTIVATED..(By date if desired)
6- REFUSALS.....(Patients who have refused an vaccines)
7- SEARCH TEMPLATE.....(Pre-selected group of patients)

Select Patient Group: 1,3//

```

Figure 4-18: Patient group screen

In producing lists or letters, you may select the group of patients you wish to include by specifying attributes, such as Due, or Active. (This group may be further limited by the other criteria you select on the main Immunization Lists and Letters screen, such as Age Range, Communities, Lot Numbers, etc.).

The List choices of Active and Inactive will simply list patients in the register, whether due or not, unless they are combined with Due or Past Due. For example, **3** will list all Active patients in the register; **"1, 3, 4"** will list all patients (Active and Inactive), but only those due for immunizations.

Another example would be if you wanted to list (or send a letter to) all patients who have received a particular vaccine or lot number. For Patient Group here you would select **"3, 4"**, then on the main Immunization Lists and Letters screen you would specify the vaccine under "Immunizations Received" or the lot number under "Lot Numbers."

Search Templates are groups of individual patients that have been produced and stored by other software, usually QMan, and saved under a Template Name. If you choose this attribute, you will be asked to select from a file of existing Search Templates.

For more information about Search Templates and how to create your own, contact your computer support people for training.

Communities (4)

This item allows you to select and save one or more communities for which you can print a list or letters. The default is **All Communities**. If you select for specific communities, only patients whose current community (under Patient Registration) is one of the selected communities will be included in the export (See Figure 4-19).

Note: Several of the parameters involve a list of items, such as Communities, Case Managers, Immunizations Received, Lot Numbers, etc. When editing these parameters you will have the opportunity to build a list of one or more of the items pertaining to the parameter. The list you build will be saved as your own personal list of this particular item and will be presented again whenever you return to make selections from that list.

```

SELECT ITEM      Sep 15, 2007 10:33:13      Page:  1 of 1

Select one or more Communities:

#  Community              State
-----
1  ANYWHERE               ALASKA
2  DEMO                   ALASKA
3  ANY COMMUNITY          ALASKA
-----

Type ?? for more actions

  A  Add an Item          E  Entire File (Add ALL Items)
  D  Delete an Item       C  Clear All (Delete ALL Items)

Select Action: Quit//

```

Figure 4-19: Select communities screen

Four Actions are available for editing these lists:

- **Add:** Adds another item to the list
- **Delete:** Removes an item from the list
- **Entire File (E):** Selects all of the specified items
- **Clear All (C):** Deletes all of the specified items from the list

Your personal list of communities is saved each time you build it. Whenever you return to this list, the previous list of communities you built is presented as a default list.

Case Managers (5)

The Case Managers item allows you to select and save one or more Case Managers of patients for whom you want to print a list or letters. The default is All Case Managers. If you select for specific Case Managers, only patients who have the selected Case Managers will be included. The procedure for selecting Case Managers is the same as described above for selecting communities. Your personal list of Case Managers is saved each time you build it.

Immunizations Received (6)

The Immunizations Received item allows you to select and build a list of vaccines received for your report. The default is All Vaccines. If you select for specific vaccines received, then only patients who have received the selected vaccines will be included in the Lists and Letters. The procedure for selecting vaccines is the same as for selecting communities. Your personal list of vaccines is saved each time you build it.

Immunizations Due (7)

This item allows you to select and build a list of vaccines due for your report. The default is All Vaccines. If you select for specific vaccines due, then only patients who are due for the selected vaccines will be included in the Lists and Letters.

The procedure for selecting vaccines is the same as described above for selecting communities. Your personal list of vaccines is saved each time you build it.

Note that if the Patient Group (3) is strictly "Past Due," then this parameter, "Immunizations Due," will become "Immunizations Past Due." This allows searching for patients who are past due for only specific vaccines.

Lot Number (8)

You can select and build a list of lot numbers for your report. The default is All Lot Numbers. If you select for specific lot numbers, only patients who have received immunizations with the specified lot numbers will be included in the Lists and Letters.

The procedure for selecting lot numbers is the same as described above for selecting communities. Your personal list of lot numbers is saved each time you build it.

Additional Information (9)

When you print a list, you may select Additional Items of Patient Information to be included in the display or printout of this Patient List (Figure 4-20). This selection does not pertain to the printing of Letters.

Any combination of items may be selected by entering the corresponding numbers, separated by commas. Items may also be selected inclusively by using a "-" dash. For example, 1-5 will include items 1, 2, 3, 4, and 5.

"Directions to House," Item 6, refers to the physical "Location of Patient's Home," as edited on Page 9 of Patient Registration.

"Parent/Guardian," Item 7, refers to the patient's parent or guardian *as listed* under "Additional Patient Information" of the Patient View in Immunization.

Note: This is not necessarily the same as the "Father's Name" or "Mother's Maiden Name" as listed in the RPMS Patient Registration Module.

"Next Appointment," Item 11, refers to the patient's next appointment, *if* the RPMS Scheduling package is in use on this system and *if* the patient has a future appointment scheduled.

Also note that "Current Community" will automatically appear in the right-most column of the Due List when it displays or print. "Current Community" here refers to Page 1 (Field# 8) of Patient Registration.

```

IMMUNIZATION v8.2
*      ADDITIONAL INFORMATION      *

Please select any Items of Additional Patient Information you wish to be
included in the Due List by entering the corresponding number(s).

To include more than one Item, separate the numbers with commas. For example:
1,2,4 would include Phone Number, Address, and Directions to House.

0      No Additional Information
1      Phone Number
2      Address
3      Immunization History
4      Immunization History w/Lot#'s
5      Immunization Forecast
6      Directions to House
7      Parent/Guardian
8      Case Manager
9      Reason Inactivated
10     Skin Tests
11     Next Appointment (RPMS Scheduling)

Select Items:

```

Figure 4-20: Additional items of patient information screen

Order of Listing (10)

The Select Order screen (Figure 4-21) allows you to select the order in which patients will be sorted.

```

IMMUNIZATION v8.2
*      SELECT ORDER      *

Select the Order by which patients should be sorted.

1      Patient Age
2      Patient Name (alphabetically)
3      Patient Chart#
4      Case Manager
5      Case Manager, then Community
6      Community, then Case Manager
7      Community, then Patient Age
8      Community, then Patient Name
9      Community, then Patient Chart#
10     Zipcode, then Patient Name

Select Order: Patient Age//

```

Figure 4-21: Select order of listing screen

- **Patient Age** will list patients in order of increasing age.
- **Patient Name** will list patients by "Last Name, First Name" alphabetically.

- **Patient Chart#** will list patients by increasing Chart Number (Health Record Number).
- **Case Manager** will list patients grouped by Case Manager (and then by Patient Name alphabetically under each Case Manager).
- **Case Manager, then Community** will list patients grouped first by Case Manager and then by Community.
- **Community, then Case Manager** will list patients grouped first by Community and then by Case Manager.
- **Community, then Patient Age** will list patients grouped first by Community and then by Patient Age.
- **Community, then Patient Name** will list patients grouped first by Community and then by Patient Name.
- **Community, then Patient Chart#** will list patients grouped first by Community and then by Patient Chart#.
- **Zip Code, then Patient Name** will begin with lowest zip codes first, then patient name (useful for bulk mailing discounts).

Include Deceased (11)

This option allows you to include deceased patients in the list or report. In general deceased patients are left off of lists and reports unless you need this for purposes such as tracking recipients of a particular vaccine or reconciling various reports.

4.3.3 Printing a List

This action either displays the list of selected patients on your screen, from which you can also print it, or it sends the list directly to the printer queue (Figure 4-22).

Print: If it customarily takes a long time for your computer to produce a List of Patients, it may be more efficient for you to queue it to a printer. That way you can be free to do other things until the printout is finished.

View: You will have to wait while the computer retrieves the information. However, once the List of Patients comes up on the screen, you will be able to browse the list on screen by scrolling up and down using the arrow keys. If you view it on your screen, you can also print it, but it takes longer this way than if you initially select Print.

IMMUNIZATION v8.2

WARNING: Confidential Patient Information, Privacy Act applies.

UNSPECIFIED MEDICAL CENTER

Report Date: 31-Mar-2007

Total Patients: 6 (1-72 Months)

Clinic Date: 31-Mar-2007

Patient Group: Active

Name

HRCN#

DOB

Age

Parent/Guardian

=====

PATIENT, DEMO

12345

01-Jan-1999 (2 months)

Needs: HIB

POLIO

DEMO, JOANNE

67890

01-Jan-1999 (2 months)

Needs: HEPB

HIB

POLIO

Figure 4-22: List of patients selected screen

4.3.4 Print a Due Letter

The Print a Due Letter action sends a selected Due Letter to your printer or displays it on your screen (from which you can also print it). If you send a letter to your printer for a patient or group of patients, the Patient Immunization (Patient View screen) shows the date on which it was printed. Refer to the Manager Menu if you need to modify the Standard Form Letter. An example of a Print a Due Letter screen is shown in Figure 4-23.

IMMUNIZATION v8.2

* DATE/LOCATION LINE *

The Letter you have selected prints a Date/Location line between
The Bottom Section and the Closing Section of the letter.

An example would be:

5-May-1998 at the Children's Clinic, UNPECIFIED Medical Center

This line may be up to 70 characters long.

Please enter/edit the Date/Location line now.

Line

10/9/1998 at the Children's Clinic, UNPECIFIED Medical Center

Figure 4-23: Print a due letter screen

Note: If you have a Date/Location in your Form letter and you are asked to choose a DATE/LOCATION of CLINIC, you may enter a

specific Clinic Appointment Date, or you may change this line to request that the parent call clinic for an appointment.

5.0 Reports Menu

The Reports option on the Main Menu (Figure 5-1) provides the ability to generate and print or display standard reports of immunization rates in the following formats: Adult Immunization Report, Quarterly Immunization Report, and Two-Year-Old Report. In each of these reports if you select **View the Report**, you will get a prompt at the bottom of the screen that will allow you to display and edit the individual of patients who were included in the report. These patients can be grouped and displayed in one of three ways: Not Current (Not Age Appropriate), Current, or Both Groups.

Note: This feature is only available if the report is viewed rather than printed.

The Reports Menu also offers a doses administered report called the Vaccine Accountability Report.

Selecting the Reports Menu

To select the Reports Menu, type **REP** at the “Select New Immunization Menu Option:” prompt. The Reports Menu displays the options shown in Figure 5-2.

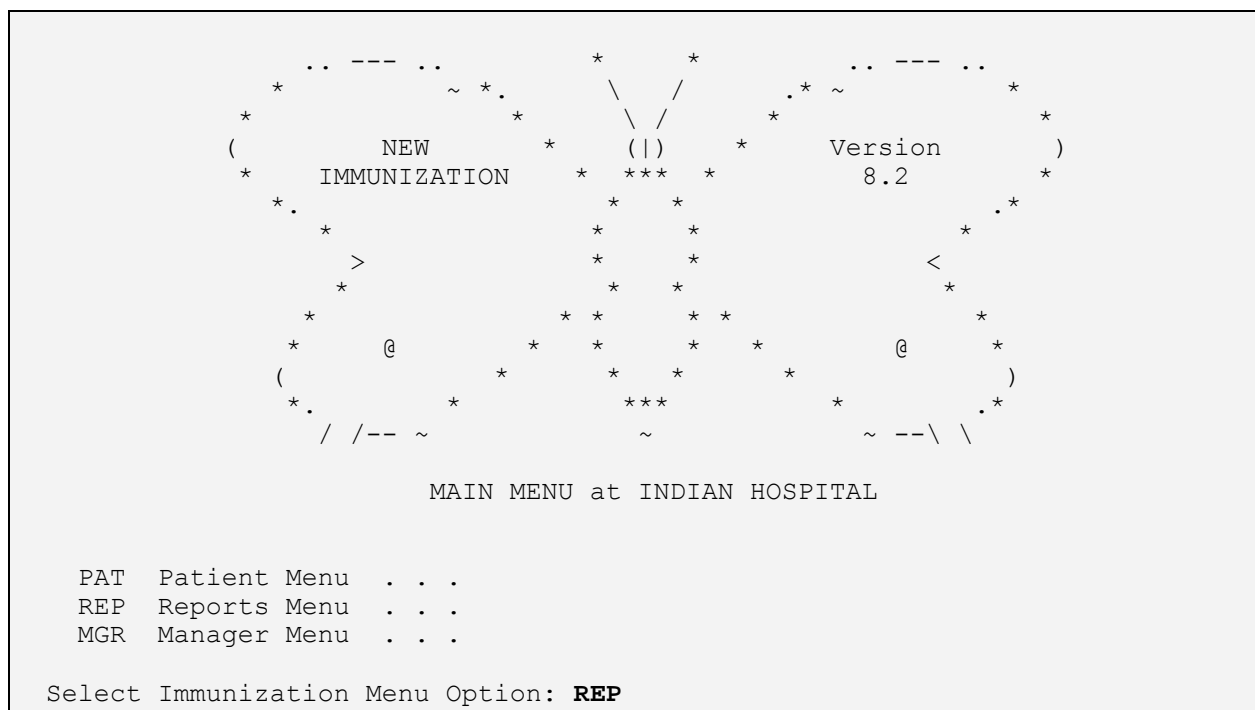


Figure 5-1: Main menu – reports option

Sections 5.1 through 5.5 explain how to use the options within the Reports Menu (Figure 5-2).

IMMUNIZATION v8.2	* REPORTS MENU *	Site: UNSPC MED CTR
	=====	User: USER, DEMO
ADO Adolescent Immunization Report ADL Adult Immunization Report QTR Quarterly Immunization Report TWO Two-Yr-Old Immunization Rates VAC Vaccine Accountability Report		
Select Reports Menu Option:		

Figure 5-2: Reports menu

5.1 Adolescent Immunization Report (ADO)

The Adolescent Immunization Report will provide statistics on Adolescent Immunizations. The population of patients reviewed is those 11 years 0 days to 17 years 364 days who have been seen at least *twice* in the past *three years* and who live in a community specified by the user (these patients are often referred to in RPMS as "Active Clinical Users").

The Adolescent report follows the logic of the National Immunization Survey to provide immunization coverage rates for single vaccines and groups of vaccines in children 11 to 12 years, 13 years, and 13 to 17 years of age by certain key ages (i.e. 3 HepB and 2 MMR and 1-Td/Tdap, 3-HepB, 2-MMR, 1-Var) by the date of the report. A nationally reported measure in the National Immunization Survey is 1-Td/Tdap, 3-HepB, 2-MMR, 1-Var. This report displays Active children who are between 11 years 0 months and 17 years 11 months of age on the selected date of the report. The key ages by which vaccines were received are listed across the top of the report. Total patients who received each dose of the vaccines for each age-group are listed in rows beside each dose (e.g., the total number (%) of 11 to 12 year old patients receiving 3-HepB by the Report Date). The date header on far left header signifies "doses received by the report date" and includes all doses a child received up to the "Quarter Ending Date" chosen. All percentages represent a fraction of the total patients as noted at the top and bottom of the report.

Criteria

Single Antigens: HepB doses 1-3, MMR dose 1-2, Varicella doses 1-2 and Hx of Chickenpox, Tdap or Td/Tdap 1 dose, HepA doses 1-2, Meningococcal dose 1, Flu dose 1 in past year. For females, the report also monitors HPV vaccine doses 1-3.

Combinations: Two combinations of vaccines are monitored for both genders: 1-Td/Tdap, 3-HepB, 2-MMR, 1-Var; and 1-Td/Tdap, 3-HepB, 2-MMR, 1-Mening, 2-Var. In addition, the following combination is monitored for females: 1-Td/Tdap, 3-HepB, 2-MMR, 1-Mening, 2-Var, 3-HepB.

Report Parameters

There are five items or "parameters" on the screen that you may change in order to select for a specific group of patients.

Quarter Ending Date (1): The report will compile immunization rates as of the date entered. Typically, this date would be the end of a quarter.

Community (2): If you select for specific communities, only patients whose current community matches one of the communities selected will be included in the report. "Current Community" refers to Item 6 on Page 1 of the RPMS Patient Registration.

Health Care Facility (3): If you select for specific Health Care Facilities, only Patients who have active chart numbers at one or more of the selected facilities will be included in the report.

Case Manager (4): If you select for specific Case Managers, only patients who have the selected Case Managers will be included.

Beneficiary Types (3): If you select Beneficiary Types, only patients whose beneficiary type is one of those you select will be included in the report. "Beneficiary Type" refers to Item 3 on page 2 of the RPMS Patient Registration package.

```

                                ADOLESCENT IMMUNIZATION RATES REPORT

1 - Quarter Ending Date.....: 31-May-2007
2 - Community.....: ALL
3 - Health Care Facility.....: ALL
4 - Case Manager.....: ALL
5 - Beneficiary Type.....: INDIAN/ALASKA NATIVE

      Select a left column number to change an item.

V  View Quarterly Report      P  Print Quarterly Report      H  Help
Select Action: Quit//
```

Figure 5-3: Adult immunization report screen

UNSPECIFIED Medical Center			
IHS Adolescent Immunization Rates For patients 11 through 17 Years of Age			
As of: 31-May-2007		Total Patients: 2631 Total Females: 1299	
Beneficiary Type: INDIAN/ALASKA NATIVE			
Age Group Denominators	11-12yrs 1139	13yrs 338	13-17yrs 1492
1-HEPB	1082 95%	288 85%	1213 81%
2-HEPB	1066 94%	282 83%	1159 78%
3-HEPB	1042 91%	278 82%	1115 75%
1-MMR	1095 96%	304 90%	1251 84%
2-MMR	1025 90%	278 82%	1153 77%
1-VAR	570 50%	116 34%	311 21%
2-VAR	113 10%	33 10%	64 4%
Hx of Chickenpox (Immune)	365 32%	114 34%	601 40%
1-Tdap	359 32%	118 35%	311 21%
1-Tdap/Td	418 37%	237 70%	1168 78%
1-HEPA	1076 94%	295 87%	1289 86%
2-HEPA	1014 89%	272 80%	1157 78%
1-MEN	11 1%	8 2%	84 6%
1-FLU	37 3%	14 4%	58 4%
1-TD_B 3-HEPB 2-MMR 1-VAR	199 17%	86 25%	240 16%
1-TD_B 3-HEPB 2-MMR 1-MEN 2-VAR	4 0%	3 1%	13 1%

Female Denominators	11-12yrs 556	13yrs 166	13-17yrs 743
1-HPV	8 1%	3 2%	19 3%
2-HPV	5 1%	2 1%	8 1%
3-HPV	0	0	0
1-TD_B 3-HEPB 2-MMR 1-MEN 2-VAR 3-HPV (females)	0	0	0
Total Active Patients reviewed: 2631 Total Active Females reviewed: 1299 Total Patients reviewed who had Refusals on record: 18			
*Denominators are Active Clinical Users: 2 clinical visits in the past 3 years. *Patients considered "Current" have 1-Td_B, 3-HEPB, 2-MMR, 1-VAR.			

Figure 5-4: Sample adult immunization report

5.2 Adult Immunization Report (ADL)

The Adult Immunization Report will provide statistics on Adult Immunizations. The population of patients reviewed is those over the age of 50 who have been seen at least *twice* in the past *three* years and who live in a community specified by the user. (These patients are often referred to in RPMS as "Active Clinical Users").

Criteria

Tetanus: The patient must have had a tetanus immunization documented in the past 10 years. This includes any of the following CVX Codes: 1, 9, 20, 22, 28, 35, 50, 106, 107, or 110.

Influenza: The patient must have had an influenza immunization documented in the past year. This includes CVX Codes 15, 16, 88, 111 or a diagnosis of V04.8 or V06.6 or a CPT Code of 90657, 90658, 90659, or 90660.

Pneumovax: The patient must have had a pneumococcal immunization documented ever (and in the past 6 years in Alaska). This includes any of the following CVX Codes: 33, 100, or 109.

Report Parameters

The Immunization Adult Report screen allows you to adjust the report to your needs. There are four parameters on the screen that you may change in order to select for a specific group of patients. To change an item, enter its left column number (1-4) at the prompt on the bottom of the screen. Type **?** at any prompt where you would like more information on the parameter you are changing.

Once you have the parameters set to retrieve the group of patients you want, select **V** to view the Adult Report or **P** to print it.

If it customarily takes a long time for your computer to prepare this report, it may be preferable to print and queue the report to a printer, rather than viewing it on screen. (This would avoid tying up your screen while the report is being prepared).

Quarter Ending Date (1): The report will compile immunization rates as of the date entered. Typically, this date would be the end of a quarter. The system will interpret most forms in which you type the date. If you type in only a month and a year, the system assigns the last day of the month for the report. The patient ages (65 years, etc.) will be calculated as of the date you enter here:

Community (2): If you select communities, only patients whose current community matches one of the communities selected will be included in the report. "Current Community" refers to Item 6 on page 1 of the RPMS Patient Registration package.

Health Care Facility (3): If you select Health Care Facilities, only patients who have active chart numbers at one of the selected facilities will be included in the report.

Beneficiary Types (4): If you select Beneficiary Types, only patients whose beneficiary type is one of those you select will be included in the report. "Beneficiary Type" refers to Item 3 on page 2 of the RPMS Patient Registration package.

CPT Coded Visits (5): If you type **YES** in this field, the report will search for and include any immunizations that were only entered as CPT Codes.

ADULT IMMUNIZATION REPORT

1 - Quarter Ending Date.....: 31-March-2007

2 - Community.....: ALL

3 - Health Care Facility.....: UNSPEC MED CTR

4 - Beneficiary Type.....: ALL

5 - Include CPT Coded Visits....: NO

Select a left column number to change an item.

V View Quarterly Report P Print Quarterly Report H Help

Select Action: Quit//

Figure 5-5: Adult immunization report screen

UNSPECIFIED Medical Center Adult Immunization Report 30-Jan-2004 to 30-Jan-2003		

Facility: UNSPEC MED CTR		

	Number	Percent
=====		
Total Number of Patients over 50 years old.....:	14,183	
TETANUS: # patients w/Td in past 10 years.....:	5,911	41.7
INFLUENZA: # pts w/Influenza vaccine in past year...:	1,314	9.3
PNEUMOVAX: # patients w/Pneumovax ever.....:	6,498	45.8
PNEUMOVAX (Alaska): # pts w/Pneumovax in past 6 yrs.:	4,644	32.7
Total Number of Patients over 65 years old.....:	5,088	
TETANUS: # patients w/Td in past 10 years.....:	2,026	39.8
INFLUENZA: # pts w/Influenza vaccine in past year...:	592	11.6
PNEUMOVAX: # patients w/Pneumovax ever.....:	3,431	67.4
PNEUMOVAX (Alaska): # pts w/Pneumovax in past 6 yrs.:	2,372	46.6
Total Patients included who had Refusals on record....:	5	

Figure 5-6: Sample adult immunization report

5.3 Quarterly Immunization Report (QTR)

With this Reports Menu option you can generate a report of the age-appropriate immunization rates for Active children 3 to 27 months of age (Figure 5-8). The Immunization Quarterly Report screen allows you to adjust the report to your needs.

The IHS and Tribal programs report the current age-appropriate immunization rate of active children 3 to 27 months of age. The criteria listed below are used by IHS to determine the up-to-date status of children in each age group, and the age-specific rates are combined into a total rate. Pneumococcal, Varicella, and Hepatitis A vaccines can be included in the report totals by typing **YES** for option 6. However, for your report to Headquarters type **NO** to exclude these from the totals. Age-appropriate immunization rates are given for each age group as well as a total 3 to 27 months age-appropriate rate, using the following criteria: (Note that Hib requirements match the PedvaxHIB schedule).

Age-Appropriate Immunization Rates	
3-4 months old	1-DTaP 1-IPV 1-Hib 1-HepB
5-6 months old	2-DTaP 2-IPV 2-Hib 2-HepB
7-15 months old	3-DTaP 2-IPV 2-Hib 2-HepB
16-18 months old	3-DTaP 2-IPV 3-Hib 2-HepB
19-23 months old	4-DTaP 3-IPV 3-Hib 3-HepB 1-MMR
24-27 months old	4-DTaP 3-IPV 3-Hib 3-HepB 1-MMR

Quarter Ending Date (1): The report will compile immunization rates as of the date entered. Typically, this date would be the end of a quarter. The system will interpret most forms in which you type the date. If you type in only a month and a year, the system assigns the last day of the month for the report. The patient ages (3 months, 5 months, etc.) will be calculated as of the date you enter here.

Community (2): If your selection is for specific communities, only patients whose current community (under Patient Registration) matches one of the communities selected will be included in the report. "Current Community" refers to Item 6 on Page 1 of the RPMS Patient Registration package.

Health Care Facility (3): If you select Health Care Facilities, only patients who have active chart numbers at one or more of the selected facilities will be included in the report. (The default facility will be the one under which you have logged in).

Case Manager (4): If you select Case Managers, only patients who have the selected Case Managers will be included in the report.

Beneficiary Types (5): If you select Beneficiary Types, only patients whose Beneficiary Type is one you selected will be included in the report. "Beneficiary Type" refers to Item 3 on page 2 of the RPMS Patient Registration package.

Include Hep A, Pneumo & Var (6): Answer **YES** if you wish to have the HepA, Pneumo, and Varicella rates included in the "Appropriate for Age" statistics at the top of the report.

Immunization v8.2	Feb 17, 2007 16:23:04	Page: 1 of 1
<u>QUARTERLY IMMUNIZATION REPORT</u>		
1 - Quarter Ending Date.: 31-Mar-1998		
2 - Community.: ALL		
3 - Health Care Facility: UNSPECIFIED MEDICAL CENTER		
4 - Case Manager: ALL		
5 - Beneficiary Type.....: ALL		
6 - Include Hep A, Pneumo & Var: NO		
Select a left column number to change an item.		
V View Quarterly Report	P Print Quarterly Report	H Help
Select Action: Quit//		

Figure 5-7: Quarterly immunization report screen

Note: The software stores every patient in the report. If you View the Report you will get a prompt at the bottom of the screen that will allow you to print lists of patients who were: Not Current (Not Age Appropriate), Current, or Both Groups. (This is only available if the report is viewed rather than printed).

It is possible that some children were "Not Age Appropriate" because they were behind on vaccines, so they may not be *due* for any immunizations. Also, any immunizations given after the Quarter Ending Date of the report are not counted.

UNSPECIFIED Medical Center Quarterly Immunization Report For Children 3-27 Months of Age 30-Sep-2007						

Facility: UNSPEC MED CTR						

	Age in Months					
	|-----|					Totals
	3-4	5-6	7-15	16-18	19-23	24-27
=====						

# in Age	|	138	138	587	190	275	271	|	1599
Minimum Needs	|	1-DTaP 1-POLIO 1-HIB 1-HEPB	2-DTaP 2-POLIO 2-HIB 2-HEPB	3-DTaP 2-POLIO 2-HIB 2-HEPB	3-DTaP 2-POLIO 3-HIB 2-HEPB 1-MMR	4-DTaP 3-POLIO 3-HIB 3-HEPB 1-MMR	4-DTaP 3-POLIO 3-HIB 3-HEPB 1-MMR	|	
Approp. for Age	|	119 86%	101 73%	458 78%	148 78%	186 68%	217 80%	|	1229 77%
1-DTaP	|	119	126	539	179	258	259	|	1480
2-DTaP	|	28	102	515	170	248	253	|	1316
3-DTaP	|		25	463	160	237	248	|	1133
4-DTaP	|			15	68	190	222	|	495
1-POLIO	|	120	126	538	178	257	258	|	1477
2-POLIO	|	28	101	512	169	243	252	|	1305
3-POLIO	|		26	459	158	228	243	|	1114
1-MMR	|			168	154	238	247	|	807
1-HIB	|	120	126	538	178	258	260	|	1480
2-HIB	|	27	102	506	171	243	253	|	1302
3-HIB	|			181	149	223	236	|	789
4-HIB	|			6	10	16	26	|	58
1-HEPB	|	128	133	548	182	262	264	|	1517
2-HEPB	|	101	125	521	176	249	252	|	1424
3-HEPB	|	19	77	456	166	236	244	|	1198
1-VAR	|			141	139	215	226	|	721
1-HEPA	|				1	1	134	|	136
2-HEPA	|						1	|	1
1-PNE	|	118	126	533	177	252	256	|	1462
2-PNE	|	26	99	506	167	238	250	|	1286
3-PNE	|		25	405	131	214	234	|	1009
4-PNE	|			7	24	111	132	|	274
1-ROTA	|	118	126	533	177	252	256	|	1462
2-ROTA	|	26	99	506	167	238	250	|	1286
3-ROTA	|		25	405	131	214	234	|	1009
Total Patients included who had Refusals on record									14

Figure 5-8: Sample quarterly immunization report

5.4 Two-Yr-Old Immunization Report

The Two-Yr-Old Immunization report (Figure 5-9) provides age-specific immunization rates for individual vaccines (e.g. DTaP) as well as groups of vaccines (e.g. DTaP 4, polio 3, MMR 1) in active children currently 19 to 35 months of age.

```

Immunization v8.2                Feb 17, 2007 16:23:04                Page:    1 of    1

                                TWO-YR-OLD IMMUNIZATION RATES REPORT

1 - Quarter Ending Date.: 31-May-2007
2 - Age Range.....: 19-35 months
3 - Community. . . . .: ALL
4 - Health Care Facility: UNSPECIFIED MEDICAL CENTER
5 - Case Manager . . . .: ALL
6 - Beneficiary Type....: INDIAN/ALASKA NATIVE

        Select a left column number to change an item.

V  View Rates Report          P  Print Rates Report          H  Help

Select Action: Quit//

```

Figure 5-9: Two-yr-old immunization rates report

The Two-Yr-Old report audits immunization data in the same manner as CDC's CASA (Clinic Assessment Software Application) software, the National Immunization Survey and the Year 2010 Health Objectives.

Single vaccines: e.g. % with DT(a)P 1 by age 3 months:

- % with DT(a)P 2 by age 5 months
- % with DT(a)P 3 by age 7 months
- % with DT(a)P 4 by age 19 months, by 24 months, by the report date

Vaccine groups: e.g. % with DT(a)P 1, polio 1, Hib 1, Hep B 1 by age 3 months:

- % with DT(a)P 4, polio 3, Hib 3, MMR 1 by age 24 months, by the report date

UNSPECIFIED Medical Center IHS Two-Yr-Old Immunization Rates For Children between 19 and 35 Months of Age							
As of: 30-Sep-2003				Total Patients: 1066			

Facility: UNSPEC MED CTR							

Received by	3 mo	5 mo	7 mo	16 mo	19 mo	24 mo	09/30/03
	# %	# %	# %	# %	# %	# %	# %
=====							
1-DTaP	941	980	998	1011	1016	1019	1021
	88%	92%	94%	95%	95%	96%	96%

2-DTaP	12	760	912	982	989	993	995
	1%	71%	86%	92%	93%	93%	93%

3-DTaP	1	4	647	923	941	957	963
	0%	0%	61%	87%	88%	90%	90%

4-DTaP	1 0%	1 0%	3 0%	297 28%	710 67%	830 78%	867 81%
1-POLIO	932 87%	981 92%	997 94%	1010 95%	1015 95%	1016 95%	1017 95%
2-POLIO	12 1%	751 70%	907 85%	975 91%	978 92%	982 92%	984 92%
3-POLIO	2 0%	5 0%	628 59%	908 85%	922 86%	934 88%	942 88%
1-HIB	931 87%	975 91%	992 93%	1014 95%	1019 96%	1021 96%	1022 96%
2-HIB	11 1%	747 70%	897 84%	975 91%	979 92%	984 92%	985 92%
3-HIB	1 0%	5 0%	89 8%	849 80%	893 84%	915 86%	920 86%
4-HIB	1 0%	1 0%	2 0%	108 10%	124 12%	128 12%	132 12%
1-HEPB	984 92%	1005 94%	1015 95%	1029 97%	1031 97%	1033 97%	1035 97%
2-HEPB	829 78%	919 86%	951 89%	985 92%	986 92%	990 93%	991 93%
3-HEPB	12 1%	560 53%	707 66%	916 86%	935 88%	947 89%	950 89%
1-MMR				876 82%	926 87%	956 90%	969 91%
1-VAR			1 0%	660 62%	769 72%	828 78%	877 82%
1-HEPA				5 0%	5 0%	20 2%	509 48%
2-HEPA							61 6%
1-PNE	834 78%	935 88%	966 91%	992 93%	997 94%	999 94%	1002 94%
2-PNE	11 1%	660 62%	850 80%	946 89%	954 89%	961 90%	964 90%
3-PNE	1 0%	6 1%	529 50%	821 77%	854 80%	882 83%	895 84%
4-PNE	1 0%	1 0%	4 0%	141 13%	352 33%	422 40%	555 52%
1-Rota	834 78%	935 88%	966 91%	992 93%	997 94%	999 94%	1002 94%
2-Rota	11 1%	660 62%	850 80%	946 89%	954 89%	961 90%	964 90%

3-Rota	1	6	529	821	854	882	895
	0%	1%	50%	77%	80%	83%	84%
1-DTaP 1-POL |	911	964	985	1006	1009	1010	1012
1-HIB 1-HEPB |	85%	90%	92%	94%	95%	95%	95%
4-DTaP 3-POL |				290	702	825	862
1-MMR |				27%	66%	77%	81%
4-DTaP 3-POL |				286	696	816	852
1-MMR 3-HIB |				27%	65%	77%	80%
4-DTaP 3-POL |				280	686	805	841
1-MMR 3-HIB |				26%	64%	76%	79%
3-HEPB |							
4-DTaP 3-POL |				280	686	805	841
1-MMR 3-HIB |				26%	64%	76%	79%
3-HEPB 1-Var |							
4-DTaP 3-POL |					1	13	429
1-MMR 3-HIB |					0%	1%	40%
3-HEPB 1-VAR |							
3-PNE |							
4-DTaP 3-POL |					1	13	429
1-MMR 3-HIB |					0%	1%	40%
3-HEPB 1-VAR |							
3-PNE 1-HEPA |							
Total Active Patients reviewed:							1066
Total Patients included who had Refusals on record							12

Figure 5-10: Sample of two-year-old immunization report

5.5 Vaccine Accountability Report (VAC)

The Vaccine Accountability report (Figure 5-12) provides “doses administered” by vaccine series (e.g., DTaP) and by age group. This report can be printed for any time period (typically, these are monthly reports) for a given facility, visit type (e.g. PHN, 638), or for a community or group of communities.

Immunization v8.2	Oct 21, 1999 15:00:58	Page: 1 of 1
<u>VACCINE ACCOUNTABILITY REPORT</u>		
1 - Date Range.....from: 21-Oct-1998 to: 21-Oct-1999		
2 - Community.....: ALL		
3 - Health Care Facility: ALL		
4 - Case Manager.....: ALL		
5 - Beneficiary Type.....: ALL		

```

6 - Visit Type.....: YES
7 - Include Historical...: YES

Select a left column number to change an item.

V View Account Report      P Print Account Report      H Help
Select Action: Quit//

```

Figure 5-11: Vaccine accountability report selection screen

UNSPECIFIED Medical Center Vaccine Accountability Report 28-Jan-2004												
Reporting period: 30-Sep-2002 to 30-Sep-2003										(Historical Included)		
<1	-1-	-2-	3-5	-6-	7-10	11-12	13-18	19-24	25-44	45-64	65+	TOTAL
=====												
DT-PEDS												
5	3		3		1	1	2			1		16

DTP												
17	5		5		2			1	4	1		35

DTaP												
3207	1259	184	1401	22	3	1	4		4	1		6086

Td-ADULT												
	1		4		61	941	1142	517	1625	948	295	5534

IPV												
3170	282	54	1342	22	15	12	45	3	5	7	1	4958

OPV												
10			1									11

HIBTITER												
40	18	2	1					1				62

PEDVAXHIB												
2209	1280	62	32	2	1		6	1	1	4		3598

HBIG												
3							2		1	1		7

HEP B												
134	165	7	8	6	3	8	50	35	86	49	5	556

HEP B ADLT												
			1			1	30	238	571	290	35	1166

HEP B PED												
3260	1005	48	90	46	43	57	174	21	11	3	1	4759

MMR												
6	1268	59	1316	12	11	7	61	104	180	19		3043

VARICELLA												
5	1213	158	154	16	75	31	127	4	13	1		1797

HEP A												
3	12	1618	1103	69	148	185	543	111	246	89	2	4129

INFLUENZA												
151	297	186	422	92	331	182	463	534	2763	3351	1948	10720

PNEUM-CONJ												
2878	1062	241	209		2	1	3	2	12	22	21	4453

PNEUMO-PS												
5	4	6	11	2	13	4	34	13	153	605	412	1262

MENING-PS												
3							19	4				26

RSV-MAb												
411	81	18	9									519

COMVAX												
		1										1

PEDIARIX												
7												7

TOTAL IMMUNIZATIONS (for all vaccines in this report)												52745

Figure 5-12: Sample vaccine accountability report

6.0 Manager Menu

Only Case Managers and Program Managers have access to the Manager Menu. Figure 6-1 shows the Main Menu with the Manager option. From this menu, managers can correct patient errors, add/edit Case Managers, edit site parameters for the Immunization Module, re-standardize the Vaccine Table, and export Immunization Data to another software program or to an agency (e.g., State Health Department), and more.

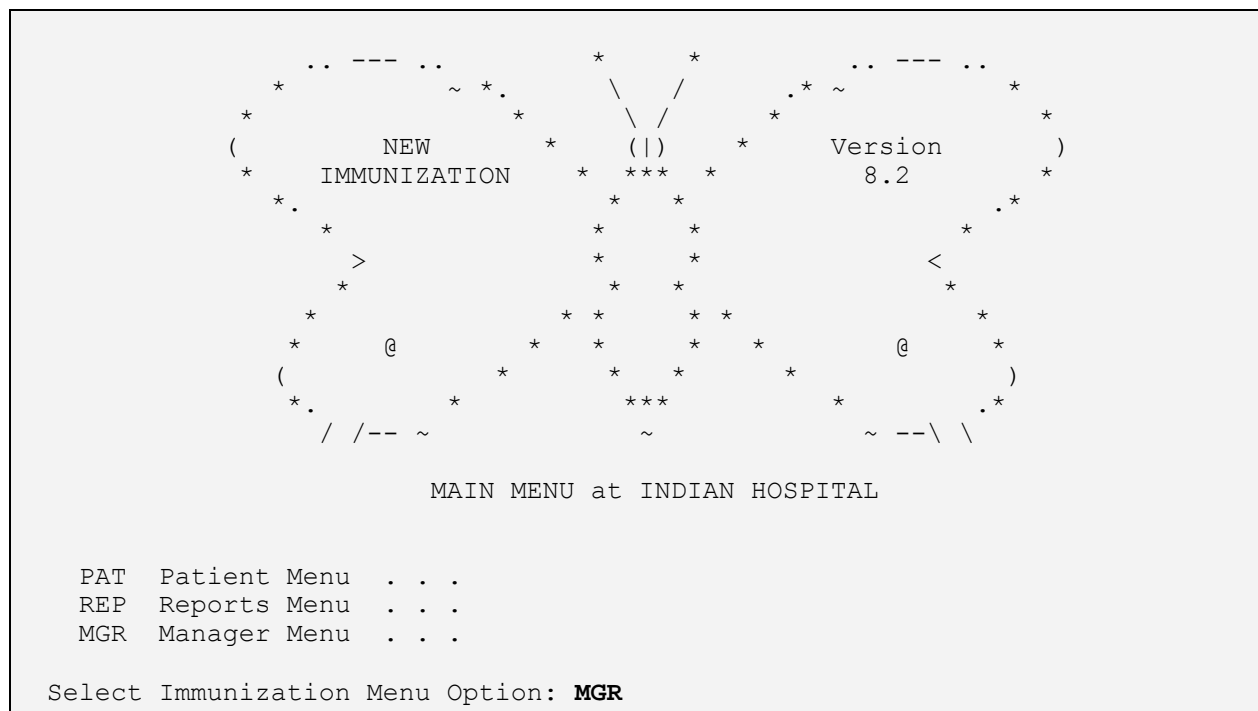


Figure 6-1: Main menu – manager option

Selecting the Manager Menu

To select the Manager Menu, type **MGR** at the “Select New Immunization Menu Option:” prompt. The Manager Menu displays the options shown in Figure 6-2.

IMMUNIZATION v8.2	* MANAGER MENU *	Site: UNSPEC MED CTR
	=====	User: USER, DEMO
ERR	Edit Patient Errors	
CMG	Add/Edit Case Manager	
CMT	Transfer a Case Manager's Patients	
SCN	Scan For Patients	

ESP	Site Parameters Edit	
PKG	Package Setup Information	
LET	Form Letters Add/Edit	
LOT	Lot Number Add/Edit	
VAC	Vaccine Table Edit	
RES	Restandardize Vaccine Table	
EXP	Export Immunizations	
KEY	Allocate/Deallocate Imm Menu Keys	
Select Manager Menu Option: ERR Edit Patient Errors		

Figure 6-2: Manager menu

6.1 Edit Patient Errors (ERR)

This screen displays patients whose Immunization histories contain errors according to the ImmServe Forecasting utility and provides you with the ability to correct or delete those errors (Figure 6-3). The columns, from left to right, list the following:

- Patient Name
- Active/Inactive Status (A=Active, I=Inactive, N=Not In Register)
- HRCN# (Health Record Number or Chart#)
- Age (y=years, m=months, d=days)
- Vaccine Group in which the error is occurring
- An abbreviated statement explaining the error

The three actions at the bottom of the screen allow you to make corrections to patient errors on the list (Edit Patient Error) or to delete them, either individually (Delete Patient Error) or all at once (Clear/Delete All Errors) from the list.

Indian Medical Center						

ALL PATIENT ERRORS (Total: 20)						
#	Patient	Active	HRCN#	Age	V Grp	Error
1	Patient,Demo	I	123456	9y	HIB	Un-Numbered Dose
2	Patient,Demo	I	654321	10y	HEPB	Un-Numbered Dose
3	Patient,Demo.	I	000001	10y	HIB	Un-Numbered Dose
4	Patient,Demo	A	000002	12y	HEPB	Duplicate Dose#'S
Enter ?? for more actions						
E Edit Patient Error D Delete Patient Error C Clear/Delete All Errors						
Select Action: Quit//						

Figure 6-3: Edit patient errors screen

6.2 Add/Edit Case Manager (CMG)

This option (Figure 6-4) allows the manager to add or edit a Case Manager. When you add new Case Managers, they can be selected when editing a patient's Case Data. The “Date Inactivated” field makes it possible for you to inactivate case managers.

Immunization v8.2		
* ADD/EDIT CASE MANAGERS *		
Select CASE MANAGER: MANAGER, DEMO	DM	MANAGER
...OK? Yes// (Yes)		
DATE INACTIVATED:		

Figure 6-4: Add/edit case manager's screen

6.3 Transfer a Case Manager's Patients (CMT)

The manager can use this option to transfer patients to another case manager in events such as a turnover in staff or a re-assignment of cases. Figure 6-5 shows an example of a Transfer Case Manager's Patients screen. The person indicated as the new Case Manager must first be added to the file using the Add/Edit Case Managers option.

Select OLD CASE MANAGER: ??
Choose from:
DEMO, DEMO
MANAGER, DEMO
MANAGER, DEMO
MANAGER, DEMO2
Select OLD CASE MANAGER: MANAGER, DEMO
Select NEW CASE MANAGER: MANAGER, DEMO2 RM
All patients currently assigned to: MANAGER, DEMO
Will be reassigned to.....: MANAGER, DEMO2
Do you wish to proceed? Enter Yes or No? Yes
22 patients transferred from MANAGER, DEMO to MANAGER, DEMO2.

Figure 6-5: Transfer a case manager's patients screen

6.4 Scan for Patients (SCN)

This program will scan the RPMS Patient Database for children who are less than 36-months-old. Any of these children who are not in the Immunization Database and who live in one of the Communities you select will be made Active in the Immunization Register.

The program allows you to select specific communities from which patients will be scanned. (This is the "Current Community" field in RPMS Patient Registration.) You will have the opportunity to automatically use the GPRA set of communities by selecting:

- "G" to automatically use the GPRA set and proceed.
- "L" to LOAD the GPRA set and then edit your list before proceeding.
- "P" to load the PREVIOUS set of Communities you used.

6.5 Site Parameters Edit (ESP)

This option allows the manager to edit parameters that are specific to a site (facility) as displayed in Figure 6-6. Refer to the PKG option on the Manager Menu or to Site Parameters for more information relating to the Site Parameters.

Immunization v8.2	Oct 09, 1998	10:35:35	Page: 1 of 1
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Edit Site Parameters for: INDIAN MEDICAL CENTER

```

1) Default Case Manager.....: MANAGER, DEMO
2) Other Location.....: OTHER NON-IHS (e.g. private doctor)
3) Standard Imm Due Letter .....: Standard Due Letter
4) Official Imm Record Letter....: Official Immunization Report
5) Facility Report Header.....: INDIAN MEDICAL CENTER
6) Host File Server Path.....: C:\INETPUB\FTPROOT\PUB\
7) Minimum Days Last Letter.....: 60 days
8) Minimum vs Recommended Age...: Recommended Age
9) ImmServe Forecasting Option...: #7, WITH 4-Day Grace, HPV through 26
10) Lot Number Options.....: Required, Low Supply Alert=50
11) Age Appropriate for Pneumo...: 65 years old
12) Forecasting (Imms Due).....: Enabled
13) Chart# with dashes.....: No Dashes (123456)
14) User as Default Provider.....: No
15) Immserve Directory.....: C:\Program Files\Immserve82\
16) GPRA Communities.....: 6 Communities selected for GPRA.
17) Inpatient Visit Check.....: Enabled
18) High Risk Factor Check.....: Enabled
19) Import CPT-coded Visits.....: Enabled

Select a left column number to change an item.

Select Action: Quit//

```

Figure 6-6: Edit site parameters screen

The Site Parameters are defined as follows:

1. **Default Case Manager:** The Case Manager who is presented automatically as a default at all Case Manager prompts, such as when you are adding a new patient.
2. **Other Location:** An entry in the IHS Location file that is designated as the Other Location for a PCC Visit when the location is not in the Location File (e.g. private doctor).
3. **Standard Imm Due Letter:** The form letter that is sent to patients or their parents listing their Immunization History, and informing them of which immunizations are due next. It may also contain information about where and when to receive the next immunizations. The letter selected here will be presented as the default letter to use when printing Due Letters. In order to select the letter for this Site Parameter, it must already have been created via the LET option on the Manager Menu (MGR→LET). Create a new letter named "Standard Due Letter" and then return to this site parameter to choose it.
4. **Official Imm Record Letter:** The letter that presents all of a patient's Immunization information and is generally sent to schools, parents, other clinics, etc. The letter selected here will be used as the patient's Official Immunization Record whenever users select that action. In order to select the letter for this Site Parameter, it must already have been created via the LET option on the Manager Menu (MGR→LET). Create a new letter named "Official Immunization Record" and then return to this site parameter to choose it.
5. **Facility Report Header:** The name of your site or institution as you would like it to appear at the top of various reports and screens throughout this software goes into the Facility Report Header. (This may be the same as the Site Name that appears on some of the screens; however, that name is often an abbreviated form of the actual site name).
6. **Host File Server Path:** The directory on the Host File Server where files to be imported and exported are stored. Include all necessary slashes in the path name (everything except the filename itself). An example would be: C:\TEMP\ (on a PC) or /usr/mumps/ (in UNIX).
7. **Minimum Days Last Letter:** The least number of days that must pass after a letter is printed for a patient before the software automatically prints another letter to the same patient. The software will not print a second Due Letter within this default number of days since the last one was generated. The Case Manager can change this number when printing Due Letters and you can print an individual letter at any time.
8. **Minimum vs. Recommended Age:** Allows you to direct the ImmServe Forecasting program to forecast Immunizations due at either the Minimum Acceptable Patient Age or at the Recommended Age (e.g.10 weeks of age vs. 4 months of age) .

9. **ImmServe Forecasting Option:** Reference Section 9.0 Appendix C: ImmServe. Versions 1, 3, 5, 7, 9 and 11 forecast the first vaccines series at 6 weeks, the others beginning at 2 months. All versions forecast Rotavirus at 2 (6 weeks), 4, and 6 months, HepA starting at 15 months, and Influenza between September and March for infants 6-59 months. Option 11 does not forecast HepA or HepB in persons over 18 years, regardless of prior doses. All options forecast Tdap, MCV4, and HPV for adolescents per ACIP recs.

Option	6 Mths	12 Mths	15 Mths
1)	IPV	Hib, MMR, Pn, Var	DTaP
2) .....	....	Hib, IPV, MMR, Pn, Var	DTaP
3)	IPV	DTaP, Hib, MMR, Pn, Var	
4) .....	....	DTaP, Hib, IPV, MMR, Pn, Var.	
5)	IPV	Hib, MMR, Var	DTaP, Pn
7) Comvax	IPV	DTaP, HepB, Hib, MMR, Pn, Var	
9) Comvax	IPV	HepB, Hib, Var, MMR	DTaP, Pn
11)	IPV	Hib, MMR, Pn, Var	DTaP

Figure 6-7: Vaccine forecasting options

4-Day Grace Period: The ACIP recommends that vaccine doses administered four days or less before the minimum interval or age be counted as valid. (Not all states accept this "4-Day Grace Period"). The Forecasting Rules allow you to choose **YES** if you would like to screen using the 4-Day Grace Period or to choose **NO** to adhere strictly to the recommended intervals.

Note: The 4-Day Grace Period will not affect vaccine forecasting, only screening for the validity of the dose administered.

HPV Vaccine Forecasting Option: After you select the 4-day grace period option, you will get a new prompt to forecast HPV vaccine for 11 to 18-year-olds or 11 to 26-year-olds. The ACIP recommends HPV for females 11 to 12 years with catch up for 13 to 26-year-olds. But HPV is provided by the Vaccine for Children's Program only for 9 to 18-year-olds.

1. **Lot Numbers Required:** Indicates whether lot numbers should be required when entering Immunization visits (Yes) or should be Optional (No). If lot numbers should be required when entering Immunization visits, enter **YES** for this parameter. If lot numbers should be Optional, enter **NO**.

Note: Lot numbers will not be required for Immunizations with a Category of "Historical Event," even if this site parameter is set to yes.

2. **Set low Supply Alert number of doses:** When the number of remaining doses of a lot falls below 50, a "Low Supply Alert" will pop up on the screen as a user

is adding or editing an immunization with that particular lot number.

Note: No alert will occur if a "Starting Amount" has not been entered for the particular lot number in the EDIT LOT NUMBER TABLE. You may adjust the Low Supply Alert number for your site. The same Low Supply Alert number will apply to all lots.

3. **Age Appropriate for Pneumo:** The adult age at which pneumococcal immunizations are to be routinely forecast. Typically this is set at 65 (or 55 years of age in Alaska). You can also designate whether to forecast every 6 years after this age (Alaska).
4. **Forecasting (Imms Due):** Indicates whether the ImmServe Forecasting Utility is properly installed (Enable) or is not installed (Disable). If the ImmServe Forecasting Utility is properly installed and Immunizations Due should be forecast when viewing and editing patient histories, printing Due Lists, etc., choose "Enable." If the ImmServe Utility is not installed, choose "Disable." If at any point in the software a forecasting error occurs, this is due to a problem with the ImmServe Utility. In this case, either the ImmServe Utility should be re-installed (see Installation Notes in the Technical Manual), or this parameter should be disabled until the problem is corrected by technical support people.
5. **Chart Number with Dashes:** Indicates whether or not chart numbers (Health Record Numbers) are displayed with dashes throughout the Immunization Module.
 - Chart number displayed without dashes: 12345
 - Same Chart number displayed with dashes: 01-23-45
6. **User as Default Provider:** When entering new immunizations or new Skin Tests through the Immunization Module, it is possible to have the user appear as the Default Provider. In other words, when the screen for a new visit first comes up, the Provider field is already filled in with the user's name. (The user is the person logged on and entering the data).

This will only occur if the user is a provider (has been given the Provider Key). This will not occur on edits of pre-existing visits.
7. **Immserve Directory:** This is the directory where the ImmServe Forecasting files reside. In general this directory is determined and preset by the Immunization Package Installation and Instructions. For purposes of support, the standard directory designation should be adhered to. However, this parameter allows you to enter or edit a path other than the one expected, should that be necessary. (Path length may not be more than 70 characters long.) The standard paths incorporate the Imm Package version number, for example:
 - AIX: /usr/local/immserve81/
 - NT/XP: C:\Program Files\Immserve\

8. **GPRA Communities:** This allows the Immunization Program Manager to build and maintain a list of communities to be used for GPRA purposes in reports, patient scans, etc. This list is not affected by other RPMS GPRA software.
9. **Inpatient Visit Check:** When an Immunization Visit or Skin Test Visit is stored, the default category of visit is "Ambulatory" (Outpatient). However, if the RPMS PIMS (Patient Information Management System) or various Billing applications are in use, the patient may have the Status of "Inpatient" at the time of the visit.

In order to avoid conflicts that might arise from inpatient and ambulatory visits being listed for the same day, this software can check the Inpatient Status of the patient at the time of the immunization or skin test. If the patient is listed as an Inpatient at the time of the immunization, the software can automatically change the category from Ambulatory to Inpatient for the immunization.

This feature is turned on by setting "Inpatient Visit Check" to **enable**. If the "Inpatient Visit Check" feature is causing problems, however, (such as conflicts with Third-Party Billing software), then set the parameter to **disable** and no Inpatient check will occur.

10. **High Risk Factor Check:** When forecasting immunizations for a patient, this program is able to look at the patient's medical history of visits and attempt to determine if the patient has an increased risk for influenza or pneumococcal disease. If the patient has two visits in the past three years for a High Risk condition, the program will forecast the patient as due for one or both of those immunizations. This parameter either Enables or Disables that feature.
11. **Import CPT-coded Visits:** In RPMS it is possible for some immunizations to be entered by CPT Code into the CPT Visit File, rather than into the true Immunization Visit File. These "CPT-coded immunizations" do *not* appear on the patient's Immunization Profile, nor are they always included in the Immunization Package Reports.

When the "Import CPT-coded Visits" site parameter is enabled, those immunizations that are entered only as CPT Visits will be checked and automatically entered into the proper Immunization Visits File if they do not already exist there.

If this parameter is disabled, the program will make no attempt to bring CPT-coded Visits into the Immunization files.

6.6 Package Information (PKG)

This option displays information about the Immunization Module v8.2. It addresses software options and access to them, device information, handling of the old software, and reference to site parameters. Information in this Manager Menu option is intended for use by the module manager and the local/site programmer in setting up the new module and maintaining it.

```

(Immunization v8.2)                Feb 17, 2007 16:33                Page:    1 of   18

                                PACKAGE INFORMATION for IMMUNIZATION, Version 8.2

The text presented here is intended to provide Site Managers with
helpful information regarding setup and management of the RPMS
Immunization Package, version 8.2.

OPTIONS:
-----
The main menu Option for the Immunization module is BIMENU. At most
Sites this would be placed on AKMOCORE along with other RPMS modules.
For the sake of consistency from site to site, it is recommended that the
Synonym "IMM" (Immunization) be given to the main menu Option BIMENU,
However, this is not a requirement. BIMENU allows access to every other
Option within the module. (Keys: BIZMENU ,BIZ EDIT PATIENTS, and BIZ

+      Enter ?? for more actions
                                           P  Print this text.
Select Action: Quit//

```

Figure 6-8: Module information for immunization

6.7 Form Letters Add/Edit (LET)

This option allows the manager to edit current form letters or create and save new form letters to use under the Letter Print Action on the Patient View screen or the Immunization Lists and Letters screen.

When you choose to add a new form letter this program loads a sample form letter, which you may then edit to suit the purpose of your new form letter. There are two sample form letters:

- Standard Due Letter
- Official Immunization Record

After you have selected a form letter, it is displayed on the View/Edit Form Letter screen for you to edit and save as your new form letter.

The View/Edit Form Letter screen allows you to customize form letters. The *top* section of the screen displays the name of the form letter.

The *middle* section of the screen displays the body of the letter in a scrollable region. Use the up and down arrow keys to view all parts of the letter.

The *bottom* section of the screen lists actions you can take to edit sections of the letter or to print or delete the letter.

Fields in the letter are signified by uppercase text within vertical bars, such as |PATIENT NAME|. These fields may be moved within the letter or they may be deleted. However, the text within the vertical bars must *not* be altered.

The form letter is divided into seven sections illustrated in Figure 6-9. You can edit any portion of the sample letter to create your new form letter by entering the letter or word of the section (e.g., T - Top) at the prompt. See the following screenshot.

```

Top:
                                UNSPECIFIED Immies Clinic
                                123 MAIN ST
                                ANWHERE, USA  77777
                                [B1 TODAY]

                                Date of Birth: [B1 DATE OF BIRTH]
                                Chart #: [B1 CHART NUMBER]

|BI PARENT/GUARDIAN|
|BI NAME FIRST LAST|
|BI MAILING ADD-STREET|
|BI MAILING ADD-STREET-2|
|BI MAILING ADD-CITY STATE ZIP|
Dear Parent or Guardian:
Your child, |BI NAME FIRST|, is due for immunizations. According to our records, the
following immunizations have already been received:
-----
history:

12-Aug-1994:  1-DTP, 1-OPV, 1-PEDVAXHIB, 1-HEP B VAC
10-Oct-1994:  2-DTP, 2-OPV, 2-PEDVAXHIB, 2-HEP B VAC
-----
middle:

|BI NAME FIRST| will be due for the immunizations listed below:
-----
forecast:

DTP
HEP B VAC
-----
bottom:

If you feel our records are not correct, please notify us so that we may make the
corrections
to update our records. Otherwise, please come to our clinic.
We would surely appreciate you bringing your own personal immunization records so
that we can Update our records as well as your records!
-----
date/location:

10-Dec-1994  at UNSEPECIFIED Clinic, UNSPECIFIED Medical Center
-----
closing:
Sincerely,

Dr. Ralph Avritt
-----
+   Scroll down to view more.  Type ?? for more actions

T   Top           F   Forecast       C   Closing
H   History       B   Bottom          P   Print Sample Letter
M   Middle       D   Date/Loc        X   Delete Form Letter
Select Action: Quit//

```

Figure 6-9: Form letter add/edit screen

6.7.1 Form Letter Section Descriptions:

T - Top: The Top section of the letter contains your address, today's date, and the patient's name, chart number, and address. You may edit any feature of the "Top" using the Word Processor Help instructions in Section 12.0 Appendix E. Today's date, the patient's name, address, phone number, and date of birth appear automatically as noted by the appropriate text inside brackets (e.g., [TODAY]).

Note: In version 8.1*1 patch, the letters were enhanced to allow printing of a patient's second address line if they have one. The line "[BI MAILING ADD-STREET-2]" must be added manually to any existing letters, if this feature is desired. Newly created form letters will have it automatically.

H - History: The History section of the letter contains the immunization history of the patient. You can change the immunization history (by date, by vaccine, etc.). You can also choose not to include the immunization history in your form letter. This section will also include the patient's contraindications, if any.

M - Middle: The Middle section of the letter is free text. You can edit any portion of the middle section.

F - Forecast: The Forecast section of the letter contains the immunizations for which the child is due on the Forecast/Clinic date chosen in "Immunization Lists and Letters." The Forecast does not show the series number, just the vaccines for which the patient is due. You may choose not to show the Forecast.

B - Bottom: The Bottom section of the letter is also free text. It can contain a line that says "Current Next Appt: [BI NEXT APPOINTMENT] ." If your site is running RPMS Scheduling, this field will print the patient's next scheduled appointment. If your site is not running RPMS Scheduling, this line will not print the patient's next appointment.

D - Date/Loc: The Date/Loc section of the letter gives the patient the Date and Location for Immunization Clinic and can be used if you are requesting that the patient come to a specific clinic. This is a special section that may be edited by the user (clerk or clinic staff) at the time the letter is being sent. It allows clinical staff to change the date/time/location of an appointment "on the fly" when printing the letter without giving them access to edit the other 6 sections of the form letter. If you want to have the patient call for an appointment, you can include that message (e.g., "Please call the Children's Clinic, 729-1000, for an appointment to get your child's immunizations updated") in the *bottom* section and you can eliminate this portion of the letter.

C - Closing: The Closing section contains your name and the name of the clinic. You may edit this section.

6.8 Lot Number Add/Edit (LOT)

With this option the manager can add or edit a current lot number for any vaccine in the vaccine table. Version 8.2 includes a lot number inventory monitoring system. When the pharmacist/manager enters a lot number, they will input the expiration date, source (VFC, non-VFC), available doses, and unused doses. The “doses unused” decreases each time a vaccine of that lot number is entered into RPMS. The provider will get an alert notice if they enter an expired vaccine lot, or if the supply is low. Selection of this option displays the screen shown in Figure 6-10.

The Lot Number Table will always be listed with the group of all ACTIVE lot numbers first, followed by all INACTIVE lot numbers. However, within those two groups you may select the order in which the lot numbers are displayed by selecting the “Change List Order” action at the bottom of the screen. The choices are:

1. By Lot Number
2. By Vaccine Name, then by Lot Number
3. By Vaccine Name, then by Exp Date
4. By Exp Date, then by Vaccine Name

Immunization v8.2		May 31, 2007 16:21:10		Page: 1 of 3				
ANCH MED CTR								

EDIT LOT NUMBER TABLE								
(Listed by Lot Number)								
#	Lot Number	Vaccine	MVX	Status	Exp Date	Start	Unused	Facility
1	222.....	VARICELLA...	SKB..	Active...	03/25/08..	33...	44.....	
2	444.....	VARICELLA...	SKB..	Active...	05/27/07..	500...	-2.....	
4	111.....	NO IEN.....	AB...	Inactive..	05/07/07.....			
5	333.....	VARICELLA...	SKB..	Inactive.....				
6	4321.....	PEDVAXHIB...	BAY..	Inactive..	02/09/07..	690...	427...	ALASKA N.
7	12345.....	MMR.....	AB...	Inactive..	01/31/07..	10000...	2376...	KOTZEBUE.
8	33333.....	VARICELLA...	JPN..	Inactive..	03/16/07..	477...	89.....	
9	44444.....	VARICELLA...	JPN..	Inactive..	02/14/07..	3000...	451.....	
10	54321.....	PEDVAXHIB...	USA..	Inactive.....				
11	77665.....	VARICELLA...	SCL..	Inactive..	05/10/07..	800...	678.....	
12	123456.....	PEDVAXHIB...	UNK..	Inactive.....				
+ Scroll down to view more. Type ?? for more actions								
A Add/Edit Lot Number		S Select a Lot Number		I Inactivate Old Lots				
		C Change List Order		H Help				
Select Action: Quit//VACCINE: HEPATITIS B IMMUNE GLOBULIN//								

Figure 6-10: Lot number list screen

Lot Number Table

This screen allows you to add and edit the eight fields of lot numbers. To add or edit a particular lot number, type **A** and then enter the lot number. If the lot number

already exists in the table, you will be taken automatically to that lot number and allowed to edit its fields.

Alternatively, as a shortcut, you may select a lot number you see on the screen by typing **S** and then entering the left-column number that corresponds to the lot number you want to edit.

Lastly, you may automatically inactivate *all* lot numbers that either have expired or have no expiration date by typing **I**.

The fields for each lot number are:

- Vaccine – This is the vaccine to which the lot number is assigned. A vaccine is **required** when entering a new lot number.
- Manufacturer (MVX) – This is the standard CDC/HL7 Manufacturer Code assigned to the company that produced the Lot. Enter **??** in order to view the entire Manufacturer Code list. A manufacturer is **required** when entering a new lot number.
- Status – If a lot number is set to "Inactive," users will not be able to select it when entering *new* patient immunizations for this vaccine. However, previous immunizations with this lot number will continue to show up on the patient histories.
- Expiration Date – This is the date that the lot expires.
- Starting Amount – Total number of doses in the starting inventory for the lot when it was first received.
- Number Unused – Number of doses of a lot remaining or unused. This number will decrease each time an immunization of that lot number is entered into RPMS through the Immunization package or data entry. The pharmacist or user can also reset this number if it becomes incorrect, such as might occur with wasted doses, data entry errors, etc.

Note: This number may become **negative**. A negative number for the Unused Amount would indicate that deletions, data entry errors, or testing have caused the number to become negative by mere subtraction each time it is used in the computer – even if it has not actually been used clinically. Therefore, it is entirely appropriate for the vaccine manager or pharmacist to correct the Number Unused in order to have it accurately reflect the number of doses that are still unused in the inventory (in other words, sitting on the shelf).

- Vaccine Source – C or non-VFC
- Health Care Facility – Adding a Health Care Facility to a lot number will cause that lot number to become unavailable for any user who is *not* logged on to the named facility.

In general, there is *no need* to assign lot numbers to specific facilities. However, if more than one facility uses the same computer (dialing in from remote sites), then it may be desirable to assign lot numbers to specific facilities. That way, users from another facility will be prevented from erroneously using a lot number that is not at their facility.

In cases where a lot number is truly shared by multiple facilities all using the same computer, it may be desirable to create "sub-Lots" by appending "-a," "-b," "-c," etc. to the lot number. For example, Facility A would get "#1234-a," Facility B would get "#1234-b," Facility C would get "#1234-c," and so on.

This would enable the manager or pharmacist to assign a starting amount for each "sub-Lot" to each facility and ensure that the inventory at each site individually is accurate.

```
Immunization v8.2
                                *  EDIT LOT NUMBER FIELDS  *

Note: To delete a value from any field below, enter "@" (no quotes).

This Lot Number, 987076, is associated with VARICELLA.

LOT NUMBER: 987076//
MANUFACTURER: THE RESEARCH FOUNDATION FOR MICR//
STATUS: INACTIVE//
EXPIRATION DATE: MAR 16,2007//
STARTING AMOUNT: 477//
NUMBER UNUSED: 89//
VACCINE SOURCE: VFC//
HEALTH CARE FACILITY:
```

Figure 6-11: Lot number add/edit screen

New Lot Numbers

When lot numbers contain a mixture of letters and numbers, use all capital (uppercase) letters for lot numbers. Choose the manufacturers from the standard Manufacturer's list. Type **??** to obtain the entire Manufacturer's list.

Duplicate Lot Numbers

Take the following steps to resolve duplicate lot numbers:

1. Enter the lot number in question. Two or more choices will be presented. Select one of the choices to be the valid lot number. Edit this lot number, making sure it is active and that all relevant vaccines are listed under it.
2. Select and edit each of the duplicate lot numbers. Edit the lot number itself by placing a **z** at the beginning (e.g., 483-116 → z483-116). If there is a second duplicate, add **zz** to the beginning of that lot number; for a third duplicate, add **zzz**, and so on. The adding of leading z's to the duplicates makes them

distinguishable from the valid lot number. This method also makes the old duplicate lot numbers recognizable on pre-existing visits.

3. The duplicate lot numbers should also be made *inactive*. If an old visit is to be edited and it has one of the old duplicate lot numbers, the old duplicate should be replaced with the current valid lot number (easily recognized by ignoring the leading z's).

6.9 Vaccine Table Edit (VAC)

By using the Vaccine Table Edit option, the manager can edit five parameters of any vaccine. Figure 6-12 below shows a sample of the table. Selecting “Change List Order” from the Action Menu below will toggle the order of the list between alphabetical (by name) and numerical (by CVX Code).

Immunization v8.2									
INDIAN MED CTR									

EDIT VACCINE TABLE									
#	Vaccine	CVX	Active	Lot#	Dflt	VIS	Dflt	Vol	Dflt Forecast
1	ACTHIB.....	(48)	Active	987654321234	12/16/98			.5 ml	....YES
2	ADENOV,NOS..	(82)	Inactive					.5 ml	....YES
3	ADENOV,T4..	(54)	Inactive					.5 ml	....YES
4	ADENOV,T7..	(55)	Inactive					.5 ml	....YES
5	ANTHRAX.....	(24)	Inactive					.5 ml	....YES
6	BCG.....	(19)	Inactive					.5 ml	....NO
7	BOTULINUM ..	(27)	Active					.5 ml	....YES
8	CHOLERA.....	(26)	Active					.5 ml	....YES
9	CMVIG.....	(29)	Active					.5 ml	....YES
10	COMVAX.....	(51)	Active	123321456654	07/11/01			.5 ml	....YES
11	DENGUE FEV..	(56)	Inactive					.5 ml	....YES
12	DIPHThERIA..	(12)	Inactive					.5 ml	....YES
13	DT-PEDS.....	(28)	Active		06/10/98			.5 ml	....YES
+ Scroll down to view more. Type ?? for more actions									
E	Edit Vaccine		C	Change List Order		H	Help		
			F	Forecasting		P	Print List		
Select Action: Quit//									

Figure 6-12: Vaccine table edit screen

This screen allows you to edit five fields of each vaccine.

To edit a particular vaccine, type **E**, then select the left column number that corresponds to the vaccine you want to edit.

Active/Inactive: If a vaccine is set to "Inactive," users will not be able to enter *new* patient immunizations for this vaccine. However, previous immunizations with this vaccine will continue to show up on the patient histories. The Program Manager

should inactivate extra vaccines in a vaccine group (e.g. HepA NOS, HepB NOS), in order to minimize the number of vaccine options for providers.

Lot# Dflt: This is the Lot# default that will be automatically entered in the Lot# field for this vaccine when users are adding new immunizations for patients. The user, of course, will be able to overwrite or delete the default if it is not correct.

VIS Dflt: This is the Vaccine Information Statement (VIS) default Date (Date of publication, not date given to patient). It gets entered automatically as in the VIS Date field when users are adding new immunizations for this vaccine.

Vol Dflt: This is the default volume of the injection for the given vaccine. It gets entered automatically as in the volume field when users are adding new immunizations for this vaccine.

Forecast: (YES/NO) The Forecast column indicates whether a vaccine will be forecast (listed as due for patients) or not. Each vaccine belongs to a VACCINE GROUP, for example, the HEP A GROUP. Turning OFF forecasting for the HEP A Vaccine Group will block all forecasting of any vaccines that contain Hep A vaccine. To change forecasting for a Vaccine Group, select the "Forecasting" Action at the bottom of the screen (see Figure 6-13 below).

```

Immunization v8.2                Jan 13, 2006 13:52:45                Page:    1 of    1

                                ANCH MED CTR
                                -----
                                EDIT VACCINE GROUP FORECASTING

# Vaccine Group   Forecast
1 DTORP.....YES
2 FLU.....YES
3 HEP A.....YES
4 HEP B.....YES
5 HIB.....YES
6 HPV.....YES
7 MENING.....YES
8 MMRORME.....YES
9 OORIPV.....YES
10 PNEUMO.....YES
11 ROTAVIRUS.....NO
12 TD B.....YES
13 VAR.....YES

Enter ?? for more actions
                                Change Vaccine Group
Select Action: Quit//

```

Figure 6-13: Vaccine table edit forecasting screen

Note: Combination vaccines will not be forecast specifically – their component vaccines will be forecast (if the patient is due). Use of the combination vaccines is an option open to the provider. Inputting combination vaccines into the patient's history will satisfy the requirements of the component vaccines.

6.10 Re-Standardize the Vaccine Table (RES)

The Immunization Package v8.2 comes with a Vaccine Table (Immunization File), which has been standardized with HL7/CVX codes consistent with the CDC's NIP (National Immunization Program) CVX Code set. There are several fields in the Vaccine Table that relate to functions in the package, most notably the ImmServe Forecasting utility. For this reason it is critically important that specific fields within the table not be altered.

Each time a user logs into the Immunization package, the Vaccine Table is checked for integrity. If certain fields have been altered, a warning message is issued, and several functions within the package begin to display the warning. Some basic functions of the package will continue to operate, such as the display of a patient's immunization history. Other functions will only display the warning.

Following is the text of the warning. (Users without the BIZ MANAGER Key will not see the last paragraph). As the warning indicates, re-standardizing the table simply involves selecting **RES** from the Manager Menu. This can be done at any time, and users need not log out of the package. Runtime lasts a few seconds at most.

WARNING

Vaccine Table (IMMUNIZATION File) is not standard--cannot proceed.
At this point you should back out of the Immunization Package
and contact your Site Manager or the person in charge of the
Immunization Software.

Or, you may fix this by Restandardizing the Immunization File.
To do so, proceed to the Manager Menu and select Restandardize.
(Menu Synonyms: MGR□RES)

Figure 6-14: Warning message

6.11 Export Immunizations (EXP)

This program will allow you to select a group of patients and to export their demographic and immunization data either to a file or to your screen (for capture by a PC).

You will have the opportunity to either select individual patients (by name or chart#), or to select a group of patients by specifying Status in the Register, Visit History, Age

Range, Facility, and Current Community. You will also be able to limit the export data to specific vaccines.

You will be given the option of exporting the data in an ASCII text format or ImmServe data format.

At the Manager Menu, type **EXP** at the “Select Manager Menu Option:” prompt. This will display the Export Immunization Records screen shown in Figure 6-15.

```
Immunization v8.2
                        *   EXPORT IMMUNIZATION RECORDS   *

Do you wish to:

    1) Select patients INDIVIDUALLY by entering their Names or Chart Numbers
Or
    2) Select patients by GROUP, specifying Age Range, Status, Current
       Community, etc.

Enter either 1 or 2:
```

Figure 6-15: Export immunizations screen

6.11.1 Export Patients Individually

To export patient individually, type **1** at the “Enter Either 1 or 2:” prompt. A screen similar to Figure 6-16 displays.

```
                        EXPORT DATA BY INDIVIDUALS

1 - Survey Date.....: 01-Apr-1999
2 - Patients.....: None
3 - Immunizations Received...: ALL
4 - Data Elements.....: None
5 - File Format.....: ASCII
6 - Output Device.....: SCREEN

    Select a left column number to change an item.
                                Export Data
Select Action: Quit//
```

Figure 6-16: Export data by individuals screen

Data Element (#4): This selection only pertains to exports with ASCII Format. (HL7 and Imm/Serv Data Elements are predetermined). The very first (or top) record will list, by title, the selected data elements (or fields) in the order in which they occur in the records.

Note: Immunization v8.2 contains some additional data elements (75 in all). Of particular significance to users who export data to CASA (an immunization program analysis tool) is the data element: “VACCINE CODE, HL7-CVX LEADING ZERO.” This places a leading zero at the front of any single-digit HL7-CVX code, which is a requirement of the CASA software.

File Format (#5): You may export records in either ASCII, Imm/Serv format. ASCII format positions the data elements you specify for each immunization on a separate line or record. Data elements are separated by quote-comma-quote (known as a CSV file). ImmServ is a commercial, vendor-specific format of use only to programmers working with this software.

Output Device (#6): You can export the data to your screen or to a file. Export to your screen (PC) allows you to view it, and then save it as a file. Export to a file allows you to copy it to a disk or transmit it to another computer for processing. When you select *File* and are asked to name it, your filename must confirm to the naming convention of your operating system without slashes, colons, or spaces. The path is set in the Site Parameters (MGR→ESP) by your Site Manager or Program Manager.

6.11.2 Export by Group

This screen provides a menu of options for exporting the data of groups of patients. There are 9 parameters on the screen that you may change in order to specify which patients and which data is to be exported, as well as the output device for the export.

You will be asked whether you want to select patients individually or by group. Type **2** (select patients *by group*) to display the screen shown in Figure 6-17 which follows.

EXPORT DATA BY GROUP

1 - Survey Date.....: 01-Apr-1999

2 - Age Range.....: 1-72 Months

3 - Patient Group.....: ACTIVE in the Register.

4 - Health Care Facility....: ALL

5 - Community.....: ALL

6 - Immunizations Received...: ALL

7 - Data Elements.....: None

8 - File Format.....: ASCII

9 - Output Device.....: SCREEN

Select a left column number to change an item.
Export Data

Select Action: Quit//

Figure 6-17: Export data by group screen

Patient Group (#3):

The Patient Group may only be one of the following:

- Only patients who were *active* in the Immunization Register on the Survey Date.
- Both active and inactive patients in the Immunization Register.
- All patients who have had an immunization at the selected facility(s), including those not in the Immunization Register.

Health Care Facility (#4):

If you select for specific health care facilities, only patients who have had *at least one* immunization at one of the selected health care facilities are included in the export.

Community (#5):

If you select for specific communities, only patients whose current community (under Patient Registration) is one of the selected communities are included in the export.

Immunizations Received (#6):

If you select for specific vaccines, only immunizations given with the selected vaccines are included in the export.

Other parameters are similar to those in the Export Patients Individually option.

6.12 Allocate/De-Allocate Imm Menu Keys (KEY)

This option allows the manager to give a user any one of three access levels to the system. Figure 6-18 shows an example of the Allocate/De-Allocate IMM Menu Keys screen.

HOLDERS OF IMMUNIZATION KEYS AT INDIAN MED CTR			
HOLDER	BIZMENU	BIZ EDIT PATIENTS	BIZ MANAGER
USER, CHRISTOPHER	YES		
USER, CYNTHIA	YES		
USER, LAZELL	YES	YES	YES
USER, ELLEN	YES	YES	
USER, BARBARA	YES	YES	
USER, ALFRED	YES	YES	
+ Scroll down to view more. Type ?? for more action			
A Add/Edit a Holder	E Explanation of Keys	P Print List	
Select Action: Quit//			

Figure 6-18: Allocation/de-allocation of immunization keys screen

This option may be used to assign any of the following security keys to users:

BIZMENU: Access to the Main Menu of the New Immunization Module (BIMENU) and its submenus for viewing patient data and reports. The BIZMENU Key does *not* provide any add or edit capabilities; however, holders of this key may print patient letters, view patient data, and run reports.

BIZ EDIT PATIENTS: Allows users to *add* and *edit* a patient's Immunization History, Contraindications, Skin Tests, Parent/Guardian, etc. This key does not provide access to any additional menu options; instead, it adds several actions to the main Patient View screen. This key should be given to staff that are responsible for data entry and patient management.

BIZ Manager: Allows managers to access the Manager Menu (BI MENU-MANAGER), which is a submenu of the Main Menu (BIMENU). The Manager Menu provides access to many sensitive functions pertaining to Site Parameters, Form Letters, the Vaccine Table, Lot Numbers, Exports, and the allocation of Security Keys. *The BIZ MANAGER Key should only be given to the manager of the Immunization Module.*

New Key – BIZ LOT NON-MANAGER: Imm v8.2 includes a new option named “BI LOT NUMBER NON-MANAGER,” which is locked by the Key BIZ LOT NON-MANAGER. This “stand alone” option is *not* connected to the rest of the RPMS Immunization Menu; instead, it may be assigned to any menu of any user for the purpose of adding and editing lot numbers in the Immunization Package. The option allows someone, such as a pharmacist, to add and maintain the Lot Number

Inventory without gaining access to the rest of the Manager Menu in the Immunization Package.

Note: Assignment of this option, BI LOT NUMBER NON-MANAGER, to other menus in RPMS is done by the local Site Manager, as is the key, BIZ LOT NON-MANAGER. This option and its key cannot be assigned from within the Immunization Package itself.

7.0 Rules of Behavior

7.1 Specific RPMS Rules of Behavior

All users (Contractors and IHS Employees) of RPMS will be provided a copy of the rules of behavior (RoB) and will have to acknowledge them in accordance IHS policy prior to being granted access to a RPMS system. The RPMS system is a United States Department of Health and Human Services, Indian Health Service information system that is FOR OFFICIAL USE ONLY. The system is subject to monitoring; therefore, no expectation of privacy shall be assumed. Individuals found performing unauthorized activities are subject to disciplinary action including criminal prosecution.

RPMS users must follow these RoB in addition to the RoB listed in the IHS General User Security Handbook and, if a privileged user, the RoB listed in the IHS Technical and Managerial Handbook.

Important Note: The RoBs listed in this document are specific to RPMS. For a listing of general RoB for all users, please see the IHS General User Security Handbook and for a listing of system administrators/managers rules, the IHS Technical and Managerial Handbook located at <http://home.ihs.gov/ITSC-CIO/security/secpgm/ITproced.cfm>.

7.1.1 All RPMS Users

In addition to these rules, each application may include additional RoBs, which may be defined within the individual application's documentation (e.g., PCC, Dental, Pharmacy).

7.1.1.1 Access

RPMS Users Shall:

- ✓ Only use data for which you have been granted authorization.
- ✓ Only give information to personnel who have access authority and have a need to know.
- ✓ Always verify a caller's identification and job purpose with your supervisor or the entity provided as employer *before* providing any type of information system access, sensitive information, or non-public agency information.
- ✓ Be aware that personal use of information resources is authorized on a limited basis within the provisions Indian Health Manual Chapter 6 OMS Limited Personal Use of Information Technology Resources TN 03-05," August 6, 2003.

Users Shall Not:

- X Retrieve information for someone who does not have authority to access the information.
- X Access, research, or change any user account, file, directory, table, or record not required to perform your OFFICIAL duties.
- X Store sensitive files on a PC hard drive, or portable devices or media, if access to the PC or files cannot be physically or technically limited.
- X Exceed their authorized access limits in RPMS by changing information or searching databases beyond the responsibilities of their job or by divulging information to anyone not authorized to know that information.

7.1.1.2 Logging On To the System

RPMS Users Shall:

- ✓ Have a unique User Identification/Account name and password.
- ✓ Be granted access based on authenticating the account name and password entered.
- ✓ Be locked out of an account after 5 successive failed login attempts within a specified time period (e.g., one hour).

7.1.1.3 Information Accessibility

RPMS shall restrict access to information based on the type and identity of the user. However, regardless of the type of user, access shall be restricted to the minimum level necessary to perform the job.

Users Shall:

- ✓ Access only those documents they created and those other documents to which they have a valid need-to-know and to which they have specifically granted access through an RPMS application based on their menus (job roles), keys, and FileMan access codes. Some users may be afforded additional privileges based on the function they perform such as system administrator or application administrator.
- ✓ Acquire a written preauthorization in accordance with IHS policies and procedures prior to interconnection to or transferring data from RPMS.

7.1.1.4 Accountability**Users Shall:**

- ✓ Behave in an ethical, technically proficient, informed, and trustworthy manner.
- ✓ Logout of the system whenever they leave the vicinity of their PC.
- ✓ Be alert to threats and vulnerabilities in the security of the system.
- ✓ Report all security incidents to their local Information System Security Officer (ISSO)
- ✓ Differentiate tasks and functions to ensure that no one person has sole access to or control over important resources.
- ✓ Protect all sensitive data entrusted to them as part of their government employment.
- ✓ Shall abide by all Department and Agency policies and procedures and guidelines related to ethics, conduct, behavior and IT information processes.

7.1.1.5 Confidentiality**Users Shall:**

- ✓ Be aware of the sensitivity of electronic and hardcopy information, and protect it accordingly.
- ✓ Store hardcopy reports/storage media containing confidential information in a locked room or cabinet.
- ✓ Erase sensitive data on storage media, prior to reusing or disposing of the media.
- ✓ Protect all RPMS terminals from public viewing at all times.
- ✓ Abide by all HIPAA regulations to ensure patient confidentiality.

Users Shall Not:

- X Allow confidential information to remain on the PC screen when someone who is not authorized to that data is in the vicinity.
- X Store sensitive files on a portable device or media without encrypting.

7.1.1.6 Integrity

Users Shall:

- ✓ Protect your system against viruses and similar malicious programs.
- ✓ Observe all software license agreements.
- ✓ Follow industry standard procedures for maintaining and managing RPMS hardware, operating system software, application software, and/or database software and database tables.
- ✓ Comply with all copyright regulations and license agreements associated with RPMS software.

Users Shall Not:

- X Violate Federal copyright laws.
- X Install or use unauthorized software within the system libraries or folders.
- X Use freeware, shareware or public domain software on/with the system without your manager's written permission and without scanning it for viruses first.

7.1.1.7 Passwords

Users Shall:

- ✓ Change passwords a minimum of every 90 days.
- ✓ Create passwords with a minimum of eight characters.
- ✓ If the system allows, use a combination of alpha, numeric characters for passwords, with at least one uppercase letter, one lower case letter, and one number. It is recommended, if possible, that a special character also be used in the password.
- ✓ Change vendor-supplied passwords immediately.
- ✓ Protect passwords by committing them to memory or store them in a safe place (do not store passwords in login scripts, or batch files.
- ✓ Change password immediately if password has been seen, guessed or otherwise compromised; and report the compromise or suspected compromise to your ISSO.
- ✓ Keep user identifications (ID) and passwords confidential.

Users Shall Not:

- X Use common words found in any dictionary as a password.
- X Use obvious readable passwords or passwords that incorporate personal data elements (e.g., user's name, date of birth, address, telephone number, or social security number; names of children or spouses; favorite band, sports team, or automobile; or other personal attributes).
- X Share passwords/IDs with anyone or accept the use of another's password/ID, even if offered.
- X Reuse passwords. A new password must contain no more than five characters per 8 characters from the previous password.
- X Post passwords.
- X Keep a password list in an obvious place, such as under keyboards, in desk drawers,

or in any other location where it might be disclosed.

X Give a password out over the phone.

7.1.1.8 Backups

Users Shall:

- ✓ Plan for contingencies such as physical disasters, loss of processing, and disclosure of information by preparing alternate work strategies and system recovery mechanisms.
- ✓ Make backups of systems and files on a regular, defined basis.
- ✓ If possible, store backups away from the system in a secure environment.

7.1.1.9 Reporting

Users Shall:

- ✓ Contact and inform your ISSO that you have identified an IT security incident and you will begin the reporting process by providing an IT Incident Reporting Form regarding this incident.
- ✓ Report security incidents as detailed in IHS SOP 05-03, *Incident Handling Guide*.

Users Shall Not:

- X** Assume that someone else has already reported an incident. The risk of an incident going unreported far outweighs the possibility that an incident gets reported more than once.

7.1.1.10 Session Time Outs

RPMS system implements system-based timeouts that back users out of a prompt after no more than five minutes of inactivity.

Users Shall:

- ✓ Utilize a screen saver with password protection set to suspend operations at no greater than 10-minutes of inactivity. This will prevent inappropriate access and viewing of any material displayed on your screen after some period of inactivity.

7.1.1.11 Hardware

Users Shall:

- ✓ Avoid placing system equipment near obvious environmental hazards (e.g., water pipes).
- ✓ Keep an inventory of all system equipment.
- ✓ Keep records of maintenance/repairs performed on system equipment.

Users Shall Not:

- X** Do not eat or drink near system equipment.

7.1.1.12 Awareness

Users Shall:

- ✓ Participate in organization-wide security training as required.
- ✓ Read and adhere to security information pertaining to system hardware and software.
- ✓ Take the annual information security awareness.
- ✓ Read all applicable RPMS Manuals for the applications used in their jobs.

7.1.1.13 Remote Access

Each subscriber organization establishes its own policies for determining which employees may work at home or in other remote workplace locations. Any remote work arrangement should include policies that:

- Are in writing
- Provide authentication of the remote user through the use of ID and password or other acceptable technical means
- Outline the work requirements and the security safeguards and procedures the employee is expected to follow
- Ensure adequate storage of files, removal and non-recovery of temporary files created in processing sensitive data, virus protection, intrusion detection, and provides physical security for government equipment and sensitive data
- Establish mechanisms to back up data created and/or stored at alternate work locations.

Remote Users Shall:

- ✓ Remotely access RPMS through a virtual private network (VPN) when ever possible. Use of direct dial in access must be justified and approved in writing and its use secured in accordance with industry best practices or government procedures.

Remote Users Shall Not:

- X Disable any encryption established for network, internet and web browser communications.

7.1.2 RPMS Developers

Developers Shall:

- ✓ Always be mindful of protecting the confidentiality, availability, and integrity of RPMS when writing or revising code.
- ✓ Always follow the IHS RPMS Programming Standards and Conventions (SAC) when developing for RPMS.
- ✓ Only access information or code within the namespaces for which they have been assigned as part of their duties.
- ✓ Remember that all RPMS code is the property of the U.S. Government, not the developer.
- ✓ Shall not access live production systems without obtaining appropriate written access, shall only retain that access for the shortest period possible to accomplish the task that requires the access.
- ✓ Shall observe separation of duties policies and procedures to the fullest extent possible.
- ✓ Shall document or comment all changes to any RPMS software at the time the change or update is made. Documentation shall include the programmer's initials, date of change and reason for the change.
- ✓ Shall use checksums or other integrity mechanism when releasing their certified applications to assure the integrity of the routines within their RPMS applications.
- ✓ Shall follow industry best standards for systems they are assigned to develop or maintain; abide by all Department and Agency policies and procedures.
- ✓ Shall document and implement security processes whenever available.

Developers Shall Not:

- X Write any code that adversely impacts RPMS, such as backdoor access, "Easter eggs," time bombs, or any other malicious code or make inappropriate comments within the code, manuals, or help frames.
- X Grant any user or system administrator access to RPMS unless proper documentation is provided.
- X Not release any sensitive agency or patient information.

7.1.3 Privileged Users

Personnel who have significant access to processes and data in RPMS, such as, system security administrators, systems administrators, and database administrators have added responsibilities to ensure the secure operation of RPMS.

Privileged Users Shall:

- ✓ Verify that any user requesting access to any RPMS system has completed the appropriate access request forms.
- ✓ Ensure that government personnel and contractor personnel understand and comply

Privileged Users Shall:

- with license requirements. End users, supervisors, and functional managers are ultimately responsible for this compliance.
- ✓ Advise the system owner on matters concerning information technology security.
 - ✓ Assist the system owner in developing security plans, risk assessments, and supporting documentation for the certification and accreditation process.
 - ✓ Ensure that any changes to RPMS that affect contingency and disaster recovery plans are conveyed to the person responsible for maintaining continuity of operations plans.
 - ✓ Ensure that adequate physical and administrative safeguards are operational within their areas of responsibility and that access to information and data is restricted to authorized personnel on a need to know basis.
 - ✓ Verify that users have received appropriate security training before allowing access to RPMS.
 - ✓ Implement applicable security access procedures and mechanisms, incorporate appropriate levels of system auditing, and review audit logs.
 - ✓ Document and investigate known or suspected security incidents or violations and report them to the ISSO, CISO, and systems owner.
 - ✓ Protect the supervisor, superuser or system administrator passwords.
 - ✓ Avoid instances where the same individual has responsibility for several functions (i.e., transaction entry and transaction approval).
 - ✓ Watch for unscheduled, unusual, and unauthorized programs.
 - ✓ Help train system users on the appropriate use and security of the system.
 - ✓ Establish protective controls to ensure the accountability, integrity, confidentiality, and availability of the system.
 - ✓ Replace passwords when a compromise is suspected. Delete user accounts as quickly as possible from the time that the user is no longer authorized system. Passwords forgotten by their owner should be replaced, not reissued.
 - ✓ Terminate user accounts when a user transfers or has been terminated. If the user has authority to grant authorizations to others, review these other authorizations. Retrieve any devices used to gain access to the system or equipment. Cancel logon IDs and passwords, and delete or reassign related active and back up files.
 - ✓ Use a suspend program to prevent an unauthorized user from logging on with the current user's ID if the system is left on and unattended.
 - ✓ Verify the identity of the user when resetting passwords. This can be done either in person or having the user answer a question that can be compared to one in the administrator's database.
 - ✓ Shall follow industry best standards for systems they are assigned to; abide by all Department and Agency policies and procedures.

Privileged Shall Not:

- X Access any files, records, systems, etc., that are not explicitly needed to perform their

Privileged Users Shall:

duties

- X** Grant any user or system administrator access to RPMS unless proper documentation is provided.
- X** Not release any sensitive agency or patient information.

8.0 Glossary

Term	Definition
Active Case Manager	Currently carrying a caseload; available for selection when editing a patient's Case Data.
Case Manager	A user of the RPMS Immunization Module responsible for managing patients. This includes immunization tracking and recall, entering or editing patient data, selecting appropriate letters, scanning for delinquent needs, and more.
Contraindication	A symptom or condition that makes a particular procedure or treatment inadvisable.
Data Element	A field in a record (e.g., patient record).
Due Dates	Dates on which ImmServe, a forecasting algorithm, has forecast immunizations as due.
Due Letter	A letter generated and printed by the software that is sent to a patient containing information about immunizations that are due.
Export	A process by which you can send a report to a file or to another computer, site, or agency.
File Format	The layout and style in which data is formatted in a file for export or electronic transmittal.
Forecast	A projection of immunizations that are due and that date on which they should be administered.
Health Summary	A listing of patient information including demographic data, insurance, allergies, scheduled visits, in-hospital visits, outpatient/field visits, referred care, immunizations, health maintenance reminders, missed dental visits, Diabetes and Cancer summary information, mental health/social services data and a problem list.
ImmServe	Software that evaluates immunization histories and determines due dates.
Immunization Rate	The proportion of patients who received a specified vaccine or group of vaccines within a timeframe or by a certain age.
Immunization Register	Also known as Immunization Register; the subset of RPMS registered patients whose immunization administrations are actively being tracked/followed.

Term	Definition
Inactive - Case Manager	Listed for historical purposes; cannot be entered/selected when editing a patient's Case Data.
Key	A "password" that allows or restricts access to specific areas of functionality in the software.
Location Type	An identification of a location as an IHS facility or Other such as a private clinic or physician practice.
Lot Number	The number identifying a manufacturer's batch of a particular vaccine; important in the tracking of recipients of a specific batch with which a problem has been determined.
Official Immunization	The letter that presents all of a patient's Immunization information
Output Device	The equipment to which a file is sent; usually refers to a printer or to the computer monitor screen (Home).
Patient	One who is being tracked and followed up on for immunization purposes because of age and/or vulnerability to disease; generally those patients under a certain number of years of age (e.g., 7 or 8).
Patient	One who is no longer being tracked or followed up on for immunization purposes; generally those patients beyond a certain number years of age (e.g., 7 or 8).
PCC Category	Patient Care Component category; that is, ambulatory, historical event, or inpatient.
Program Manager	The person chiefly responsible for the setup and operation of the RPMS Immunization Module at a given site.
Reaction	An adverse response to the administration of an immunization.
Record Letter	Generally sent to schools, parents, other clinics, etc.
Site Manager	The person responsible for operation of the IHS site; determines and assigns access levels to site users.
Site Parameters	Settings that can be made by the Site Manager to customize the software and data to a particular site.
Skin Test	A subcutaneous test to determine delayed hypersensitivity and thereby exposure to an antigen

Term	Definition
	(e.g., PPD).
Statement	Vaccine administered and documents the Date of Publication as evidence of Informed Consent for the vaccination.
Translation Table	A table that gives standard alternate names, maximum doses, series types, and HL7 codes for all vaccines; it explains the translation of the old vaccine names and codes in the Old Immunization Table to the new HL7 codes and names.
Vaccine	Currently available; may be entered/selected when entering new immunizations.
Vaccine	Listed only for historical purposes; no longer available as a valid choice.
Vaccine Information	A statement provided to the parent of a patient that identifies each.
Vaccine Table	A standard list of all IHS vaccines and their HL7 codes.

9.0 Contact Information

If you have any questions or comments regarding this distribution, please contact the OIT User Support (IHS) by:

Phone: (505) 248-4371 or
(888) 830-7280

Fax: (505) 248-4297

Web: <http://www.ihs.gov/GeneralWeb/HelpCenter/Helpdesk/index.cfm>

Email: support@ihs.gov

10.0 Appendix A: Change History

10.1 History of Changes

Features of Version 6.8

Version 6.8 features included the ability to track patients' immunization due dates, enter and edit patients' immunization histories, print due lists and letters, print a Quarterly Immunization Report of Age-Appropriate Immunizations, and print a Vaccine Accountability (Doses Administered) report.

Features of Version 7.0

Version 7.0 contained the features that were found in the old version 6.8 of the Immunization software and many new or updated features. Immunization due dates were forecast by a regularly updated forecasting algorithm, ImmServe, developed and maintained by Medical Decision Associates. ImmServe also provided a detailed report or "profile" on each patient's immunization history and forecast. An unlimited number of letters could be created. An export function was developed. A new Two-Year-Old Report was added, which presented vaccine-specific and vaccine-combination reports of immunizations for two-year-olds to chart progress toward Year 2000 Health Objectives.

Features of Version 7.1

Version 7.1 contained the following enhancements and updates to v7.0:

- **Updated Forecasting:** For polio, influenza (forecast at age 50), and rotavirus (inactivated).
- **Patient View Screen:** On the Patient View screen, in the Forecast section on the right hand side, the dates have been removed because they caused confusion. Only the vaccines due on the date of the forecast will be displayed.
- **Forecasting Options:** Nine forecasting rule sets are offered.

Please note: In version 7.1 the Immunization package does not list "Comvax" as a separate vaccine. Comvax should be entered as PedvaxHIB and Hep B vaccines, using the same Lot# to link the two vaccines.

- **Measles Dose Numbers:** A dose number was added to Measles.
- **Pneumococcal Conjugate Vaccine:** There are now two pneumococcal vaccines:
 - Pneumo-PS - (Pneumovax) - forecast for adults > 65 (in AK forecast >55, every 6 years)
 - Pneum-conj.- pneumococcal conjugate vaccine (Prevnar) - forecast for children < 59 months of age

- **Reports:** Pneumococcal conjugate vaccine has been added to the Quarterly Immunization Report (however pneum-conj is not counted in the totals), the Two-Year-Old Report and the Vaccine Accountability Report.
- **Reports:** A “Health Care Facilities” parameter has been added to the Quarterly Immunization and the Two-Yr-Old Immunization Reports.
- **Letters:** If the RPMS Scheduling Package is being used at a site, you can now choose to have the patient’s next scheduled appointment appear on a due letter. Next Appointment will also appear at the bottom of the Patient View Screen, and is now an element that may be included in the Due List as Additional Information.
- **Export:** Two new data elements have been added to the Export: “Mother’s Maiden Name” and “Patient Beneficiary Type.”
- **Data Entry:** If a patient is hospitalized and has not yet been discharged, the Immunization software will ignore a hospitalization if it has a Visit Type as “Contract.”
- **Patient Menu Change:** Wording of options on the Patient Menu has been changed to “Patient Lists and Letters” to more clearly indicate that the Lists and Letters option is not limited to “Due Lists.”

Features of Version 8.0

- **Combination Vaccines** – Every potential vaccine (CVX) code, including combination vaccines, will be available for data entry. For combination vaccines, the nurse/data entry person can enter either the product name (e.g. Pediarix™) or antigens (e.g DTaP-IPV-HepB). ImmServe will forecast the individual antigens and list the individual antigens in their own series group on the vaccine history as follows:

DTaP (Pediarix)	10/1/03	Due for:	DTaP
Hep B (Pediarix)	10/1/03		Hep B
IPV (Pediarix)	10/1/03		IPV

- Combination vaccines are displayed in this way throughout the Immunization Package and split into their component antigens for all reports (except Vaccine Accountability Report).
- When you enter a combination vaccine you will only be able to enter one VIS date. In the future, the CDC hopes to have one VIS date for all childhood vaccines.
- The vaccine table, spellings, CVX codes, and CPT codes are taken directly from the CDC table <http://www.cdc.gov/nip/registry/hl7/hl7-cvx.pdf>.

- Contraindications to a combination vaccine will prevent the forecast of the related antigens (e.g. Contraindication to Pediarix™ prevents forecast of DTaP, IPV, or Hib).
- There are *no dose numbers* on vaccines. Vaccines are forecast based only on the actual number of doses included in RPMS, and the age/intervals. All reports only count the number of doses in RPMS.
- We have added to the Health Summary the *age* at which the dose was given.
- **Vaccine Forecasting Options:** There are 10 Vaccine Forecasting options. For each of the options, the site can choose to use or not to use the *4-day grace period*. The forecasting options vary by use of Comvax, and by the recommended age for the 3rd IPV, 4th DTaP, final Hib, final Hep B, 4th Pn, MMR, and Varicella. The options are:

	6 Months	12 Months	15 Months
1)		IPV, MMR, Pn, Var	DTaP, Hib
2)		Hib, IPV, MMR, Pn, Var	DTaP
3)	IPV	DTaP, Hib, MMR, Pn, Var	
4)		DTaP, Hib, IPV, MMR, Pn, Var	
5)	IPV	Hib, MMR, Var	DTaP, Pn
6) Comvax		HepB, Hib, MMR, Pn, Var	DTaP, IPV
7) Comvax	IPV	DTaP, HepB, Hib, MMR, Pn, Var	
8) Comvax		HepB, Hib, IPV, MMR, Pn	DTaP, Var
9) Comvax	IPV	HepB, Hib, Var, MMR	DTaP, Pn
10)	IPV	Hib, MMR, Pn	DTaP, Var

- **Forecast Influenza in Children:** All children who are 6 to 23 months of age between September 1st and January 31st are forecast for a first dose of influenza during this time period. We do not have the sophistication to forecast a second dose the first year.
- **Updated Adult Pneumococcal Forecasting:** Pneumococcal vaccine is forecast automatically at 65 years of age (or you can choose 55 years in the Managers' Menu) for all adults. Adults who receive a pneumococcal dose < 65 years of age will have another dose forecast at 65 (or 55) years of age. In Alaska, you can choose to have pneumococcal vaccine forecast every 6 years after 55 years of age.
- **Force Invalid/Valid Doses:** In the Edit Vaccine option there is an option to "force" a dose to be invalid (because it was expired or had inappropriate temperature exposure) or to be valid (if it is invalid according to ImmServe because it does not meet minimum age/interval criteria, but it is valid in your State). The "forced" valid or invalid doses (determined by the ImmServe forecast or forced invalid by the provider) will be tagged with an asterisk and brief

explanation on the Health Summary and Vaccine History, but not on due letters.

- **Reports**

- a. **Adult Report (New):** Will print a vaccine report on “today’s date” for adults > 50 and adults >65 years with a visit to the reporting facility in the past year with the proportion who received:
 - i. Influenza in past year
 - ii. Pneumo ever
 - iii. Pneumo in past 6 years
 - iv. Td in past 10 years
- b. **Two-Year-Old Report:** Will change age range to 19 to 35 months to be consistent with age ranges for the National Immunization Survey.
- c. **Vaccine Accountability Report**
 - i. Will not show dose numbers
 - ii. Added location type so that providers can look at doses by PHN vs. IHS
- d. **Quarterly Report**
 - i. When you view the report, you can print a line list of: a) patients on the report who are age-appropriate, b) patients who are not age-appropriate, or c) all patients included in the report.
 - ii. You can choose to include or not include Hep A, Varicella and Pneumococcal vaccine in the total age-appropriate rate. Even if you do not include it in the total rate, the report will still report these vaccines individually.

- **Direct Data Entry**

- a. Added fields for new options:
 - i. Forcing valid or invalid
 - ii. Site/route of administration (e.g. Left thigh IM)
 - iii. Dose amount (default 0.5cc for most)
 - a. You can change default in Vaccine Edit Table (MGR→VAC)
- b. For entries other than today’s date, the default will be historical immunization
- c. Data entry screen is reorganized for more efficient navigation

- **Standard Manufacturers Table:** We will be using standard Manufacturer’s codes. Currently, providers have a non-standard Manufacturer’s list.

- The new version will only run on the *CACHE platform*. Site Managers will need to have their systems upgraded from MSM to CACHE.

- **Orphan Visits modified in PCC:** The PCC Visit re-linking program in PCC was modified to link "orphan" or "incomplete" immunization visits created by direct data entry to a visit entered by data entry personnel which has a provider and purpose of visit. If the re-linker cannot link immunizations to a visit, then the

PCC data entry staff can use a newly created option called "Complete Orphaned Immunization Visits." This program will assign a purpose of visit and a provider of service to the visit. This option should be run only for a time period for which the data entry staff has completed all PCC forms to prevent automatically completing visits that will eventually be completed by the normal data entry process. (For example, if data entry is 2 weeks behind, then this option should be run for a time period that ends with a date that is 2 weeks ago).

Features of Version 8.1

- **Combination Vaccines** – Every potential vaccine (CVX) code, including combination vaccines, will be available for data entry.
- **Developing GPRA Communities Taxonomy**
Upon installation of version 8.1, sites will be prompted to develop their list of GPRA communities. The GPRA coordinators should be consulted to ensure that the list is consistent with the list used for GPRA indicators.
- **Automatic Activation into the Immunization Package**
The “Not in Registry” status will no longer exist. New Scan feature searches the RPMS Patient Database for children who are less than 36-months-old and reside in GPRA communities for the facility and automatically enters them into the Register. Children already in the Register or residing outside of the GPRA communities will not be affected. When you look up an inactive <36-month-old child in the Immunization Package, you will get a prompt asking if you want to activate the child.
- **Inactivating Children**
To inactivate a patient, you will need to select a reason from a drop down menu. Reasons include: Moved Elsewhere, Treatment Elsewhere, Deceased, and Ineligible. If possible, add the location to which the patient moved and the provider’s name if a patient is getting care elsewhere. Patients who were inactivated prior to Immunization v8.1 will have “Previously Inactivated” or “Never Activated” in the Reason for Inactivation field.
- **Patient Menu**
 - When adding immunizations, if the category of Historical is entered or if the date is more than 5 days prior to “today,” the person entering the immunization will not be automatically entered as the default provider.
 - When a category of Historical is chosen on the Add/Edit an Immunization screen, inactive vaccines will be available for selection.
 - Risk Taxonomies now affect forecasting of Influenza and Pneumo. Other enhancements to forecasting of Pneumo and Influenza have been made (including forecasting Influenza through March 31).

- New fields are added for Skin Tests to record Site and Volume.
- TST-PPD can now be added as a contraindication (with a reason of “Positive TB Skin Test”).
- On the Patient View screen, new fields are displayed under Additional Information:
 - a. The Patient’s Current Community is now displayed.
 - b. “Date First Entered” now appears with a method (automatically, manually).
 - c. “Inactive Date” now has a reason displayed with it.
 - d. “Made Inactive by” now appears with the name of the user.
 - e. “Moved to/Tx Elsewhere” now appears (text up to 50 characters).
 - f. “High Risk Flu/Pneumo” status is now displayed.
 - g. “Forecast Flu/Pneumo” now includes a Disregard High Risk option.
 - h. “Pneumo Site Parameter” is displayed for reference.
 - i. “Next Appointment” only displays if the Patient has one in RPMS.
- 2.2.7 Logic to check Inpatient Status has been improved (and can be disabled via Manager’s Edit Site Parameter menu).
- 2.2.8 Enhancements to Lists and Letters options:
 - a. “Reason Inactivated” can be selected as Additional Info.
 - b. On Patient Lists and Letters, Current Community automatically displays in the right-most column instead of Parent/Guardian (which has been moved to an Additional Information item to be added if desired).
 - c. A selectable Date Range has been added to the Immunizations Received parameter of the List and Letters.
 - d. Letters: A new template is available that lists Forecast first, then History. Also, contraindications that are “Refusals” will no longer appear in printed letters.
 - e. Two new Patient Groups have been added to Lists and Letters: “Automatically Activated” and “Refusals.”
 - f. An “Include Deceased” parameter has been added to the Lists and Letters menu.
- 2.2.9 Patient lookup automatically adds patients to the Register, with prompt for Active versus Inactive based on age.
- 2.2.10 It is now possible to select for specific Immunizations Past Due.

- **Reports Menu**

- All reports now offer the opportunity to list all of the patients considered in the report, and to edit the patients' data individually from within the report.
- Immunization Package version number and patch number now appear at the top left of all printed reports.
- New Manager-edited Set of GPRA Communities can be selected for any reports in order to produce closer consistency with CRS reports.
- Number of Refusals appears at the bottom of relevant reports.
- New option in Two-Yr-Old Report allowing choice of either 19 to 35 month span or 24 to 35 month span.

- **Manager Menu**

- New Vaccines: Four new vaccines have been added to the Vaccine Table in keeping with the latest additions to the CDC NIH Standard Vaccine Table:

TETTOX, NOS (112)

Td-ADULTpf (113)

MENING-CV4 (114)

Tdap (115)

- Vaccine Forecasting Options: There are still 10 Vaccine Forecasting options; however, they have changed somewhat. For each of the options, the site can choose to use or not to use the 4-day grace period. The forecasting options vary by use of Comvax, and by the recommended age for the 3rd IPV, 4th DTaP, final Hib, final Hep B, 4th Pn, MMR, and Varicella. The options are shown in the following screen example.

	6 Mths	12 Mths	15 Mths	24 Mth
	-----	-----	-----	-----
1)	IPV	DTaP, Hib, MMR, Pn, Var		Pn23
2) .....	....	Hib, IPV, MMR, Pn, Var	DTaP	
3)	IPV	DTaP, Hib, MMR, Pn, Var		
4) .....	....	DTaP, Hib, IPV, MMR, Pn, Var.		
5)	IPV	Hib, MMR, Var	DTaP, Pn	
6)	IPV	Hib, MMR, Pn	DTaP, Var	
7) Comvax	IPV	DTap, HepB, Hib, MMR, Pn, Var		
8) Comvax	....	HepB, Hib, IPV, MMR, Pn	DTaP, Var	
9) Comvax	IPV	HepB, Hib, Var, MMR	DTaP, Pn	
10) Comvax	....	HepB, Hib, IPV, MMR, Var.....	DTaP, Pn	
All versions include DTaP for Infants and Hep A.				

Figure 9-1: Vaccine forecasting options

- Forecasting On/Off by Vaccine Groups: There is a new screen to turn on/off forecasting for each Vaccine Group.
- The full vaccine name is displayed on the Edit a Vaccine screen.
- New Site Parameters:
 - a. GPRA Communities: New site parameter allows identifying a set of GPRA Communities to be used in reports.
 - b. Inpatient Visit Check: New site parameter to enable/disable the checking of a patient's Inpatient Status when adding new immunization visits.
 - c. High Risk Factor Check: New site parameter to enable/disable the automated check on patients' high risk status when forecasting.
 - d. Import CPT-Coded Visits: New site parameter to enable/disable the automated import of visits added only via CPT Coding and not through the Immunization Package or PCC Data Entry IM mnemonic.
- A minor problem with the Lot Number Add option has been corrected (no longer prompts for multiple vaccines).
- Hep A Peds (31) will no longer be forecast for patients 18 years of age and older, but will be translated to Hep A ADLT (52).
- Hep B Peds (8) will no longer be forecast for patients 20 years of age and older, but will be translated to Hep B ADLT (43).
- New Scan feature searches the RPMS Patient Database for children who are less than 36 months old and automatically enters them into the Register.
- New Data Element "HL7-CVX LEADING ZERO" was added for exports to CASA.
- **Other**
 - The new PIMS API for creating visits is now used if present on the system.
 - Most FileMan Database calls have been converted to employ the new Silent API Calls (in preparation for GUI interfaces).
 - New programmer API call for GPRA Two-Year-Old Report (provides list of patients to other packages, i.e., CRS).
 - New forecasting API for Health Maintenance Reminder software.

- Enhancement to handle extremely large patient histories in the forecasting string.
- Twenty (20) New Programmer Entry Points (PEPs) have been designed and documented for various calls by other software into the Immunization database. (These PEPs are documented in the Immunization Technical Manual and in the code).

11.0 Appendix B: Vaccine Table for v8.2

Alaska Native Medical Center

VACCINE TABLE

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#	Vaccine	HL7	Active	Default Lot#	VIS Default	Forecast
=	=	=	=	=	=	=
1	ACTHIB.....(48)...	Active.....	12/16/98..	.5 mlYES	
2	ADENOV,NOS..(82)...	Inactive.....		.5 ml	....NO
3	ADENOV I,T4..(54)...	Inactive.....		.5 ml	....NO
4	ADENOV I,T7..(55)...	Inactive.....		.5 ml	....NO
5	ANTHRAX.....(24)...	Inactive.....	04/24/03..	.5 ml	....NO
6	BCG.....(19)...	Inactive.....		.5 ml	....NO
7	BOTULINUM ..(27)...	Active.....		.5 ml	....NO
8	CHOLERA.....(26)...	Active.....		.5 ml	....NO
9	CMVIG.....(29)...	Active.....		.5 ml	....NO
10	COMVAX.....(51)...	Active.....	07/11/01..	.5 ml	....NO
11	DENGUE FEV..(56)...	Inactive.....		.5 ml	....NO
12	DIPHThERIA..(12)...	Inactive.....		.5 ml	....NO
13	DT-PEDS.....(28)...	Active.....	06/10/98..	.5 ml	....YES
14	DTaP.....(20)...	Active.....	07/30/01..	.5 ml	....YES
15	DTAP,5PE....(106)...	Inactive.....	07/30/01..	.5 ml	....YES
16	DTAP,NOS....(107)...	Inactive.....	07/30/01..	.5 ml	....YES
17	DTAP-HIB....(50)...	Inactive.....	07/30/01..	.5 ml	....NO
18	DTP.....(1)...	Inactive.....	07/30/01..	.5 ml	....YES
19	DTP-HIB.....(22)...	Inactive.....	07/30/01..	.5 ml	....NO
20	DTP-HIB-HE..(102)...	Inactive.....	07/30/01..	.5 ml	....NO
21	FLU-NASAL...(111)...	Active.....	06/30/06.....		....YES
22	FLU-SPLIT...(15)...	Active.....	06/30/06..	.5 ml	....YES
23	FLU-WHOLE...(16)...	Inactive.....	05/06/03..	.5 ml	....YES
24	HANTAVIRUS..(57)...	Inactive.....		.5 ml	....NO
25	HBIG.....(30)...	Active.....		.5 ml	....YES
26	HEP A 2PED..(83)...	Active.....	03/26/06..	.5 ml	....YES
27	HEP A 3PED..(84)...	Inactive.....	03/26/06..	.5 ml	....YES
28	HEP A ADLT..(52)...	Active.....	03/26/06..	1 ml	....YES
29	HEP A NOS...(85)...	Inactive.....	03/26/06..	.5 ml	....YES
30	HEP A PED...(31)...	Inactive.....	03/26/06..	.5 ml	....YES
31	HEP B ADLT..(43)...	Active.....	07/11/01..	1 ml	....YES
32	HEP B ADOL..(42)...	Inactive.....	07/11/01..	.5 ml	....YES
33	HEP B DIAL..(44)...	Inactive.....	07/11/01..	1 ml	....YES
34	HEP B NOS...(45)...	Inactive.....	07/11/01..	.5 ml	....YES
35	HEP B PED...(8)....	Active.....	07/11/01..	.5 ml	....YES

36	HEP C.....(58)...	Inactive.....	.5 ml	...NO
37	HEP E.....(59)...	Inactive.....	.5 ml	...NO
38	HERPES SIM..(60)...	Inactive.....	.5 ml	...NO
39	HIB NOS.....(17)...	Inactive.....12/16/98..	.5 ml	...YES
40	HIBTITER....(47)...	Active.....12/16/98..	.5 ml	...YES
41	HIV.....(61)...	Inactive.....	.5 ml	...NO
42	HPV-2.....(118)...	Inactive.....		YES
43	HPV-4.....(62)...	Active.....02/02/07..	.5 ml	...YES
44	IG.....(86)...	Active.....	.5 ml	...NO
45	IG,NOS.....(14)...	Inactive.....	.5 ml	...NO
46	IGIV.....(87)...	Active.....	.5 ml	...NO
47	INFLUENZA...(88)...	Inactive.....	.5 ml	...YES
48	IPV.....(10)...	Active.....01/01/00..	.5 ml	...YES
49	JAPANESE E..(39)...	Inactive.....05/11/05..	.5 ml	...NO
50	JUNIN VIRU..(63)...	Inactive.....	.5 ml	...NO
51	LEISHMANIA..(64)...	Inactive.....	.5 ml	...NO
52	LEPROSY.....(65)...	Inactive.....	.5 ml	...NO
53	LYME.....(66)...	Inactive.....	.5 ml	...NO
54	MALARIA.....(67)...	Inactive.....	.5 ml	...NO
55	MEASLES.....(5)...	Inactive.....01/15/03..	.5 ml	...YES
56	MELANOMA....(68)...	Inactive.....	.5 ml	...NO
57	MEN-C CONJ..(103)...	Inactive.....	.5 ml	...YES
58	MENING-CV4..(114)...	Active.....11/16/06..	.5 ml	...YES
59	MENING-PS...(32)...	Active.....11/16/06..	.5 ml	...YES
60	MENINGOCOC..(108)...	Inactive.....	.5 ml	...YES
61	MMR.....(3)...	Active.....01/15/03..	.5 ml	...YES
62	MMRV.....(94)...	Active.....01/10/07..	.5 ml	...NO
63	MR.....(4)...	Inactive.....01/15/03..	.5 ml	...YES
64	MUMPS.....(7)...	Inactive.....01/15/03..	.5 ml	...YES
65	NO VACCINE..(998)...	Inactive.....	.5 ml	...NO
66	OPV.....(2)...	Inactive.....01/01/00..	.5 ml	...YES
67	OTHER.....(999)...	Inactive.....	.5 ml	...NO
68	PARAINFLUE..(69)...	Inactive.....	.5 ml	...NO
69	PEDIARIX....(110)...	Active.....07/30/01..	.5 ml	...NO
70	PEDVAXHIB...(49)...	Active.....12/16/98..	.5 ml	...YES
71	PENTACEL....(120)...	Inactive.....07/30/01..	.5 ml	...NO
72	PERTUSSIS...(11)...	Inactive.....	.5 ml	...NO
73	PLAGUE.....(23)...	Inactive.....	.5 ml	...NO
74	PNEUM-CONJ..(100)...	Active.....09/30/02..	.5 ml	...YES
75	PNEUMO-PS...(33)...	Active.....07/29/97..	.5 ml	...YES
76	PNEUMOCOCC..(109)...	Inactive.....	.5 ml	...NO
77	POLIO NOS...(89)...	Inactive.....01/01/00..	.5 ml	...YES
78	PROHIBIT....(46)...	Inactive.....12/16/98..	.5 ml	...YES
79	Q FEVER.....(70)...	Inactive.....	.5 ml	...NO
80	RABIES,ID...(40)...	Active.....01/12/06..	.5 ml	...NO
81	RABIES,IM...(18)...	Active.....01/12/06..	.5 ml	...NO

82	RABIES,NOS..(90)...	Inactive.....	01/12/06..	.5 ml	...	NO
83	RESERVED -(99)...	Inactive.....		.5 ml	...	NO
84	RHEUMATIC ..(72)...	Inactive.....		.5 ml	...	NO
85	RIFT VALLE..(73)...	Inactive.....		.5 ml	...	NO
86	RIG.....(34)...	Active.....		.5 ml	...	NO
87	ROTA-MONO...(119)...	Inactive.....				YES
88	ROTA-NOS....(122)...	Inactive.....				YES
89	ROTA-PENT...(116)...	Active.....	04/12/06..	2 ml	....	YES
90	ROTA-TETRA..(74)...	Inactive.....		.5 ml	...	YES
91	RSV-IGIV ...(71)...	Inactive.....		.5 ml	...	NO
92	RSV-MAb....(93)...	Active.....		.5 ml	...	NO
93	RUBELLA....(6)...	Inactive.....	01/15/03..	.5 ml	...	YES
94	RUBELLA/MU..(38)...	Inactive.....	01/15/03..	.5 ml	...	NO
95	SMALLPOX....(75)...	Inactive.....	01/16/03..	.5 ml	...	NO
96	SMALLPOX,D..(105)...	Inactive.....		.5 ml	...	NO
97	STAPHYLOCO..(76)...	Inactive.....		.5 ml	...	NO
98	Td-ADULT....(9)...	Active.....	06/10/94..	.5 ml	...	YES
99	Td-ADULTpf..(113)...	Active.....	06/10/94..	.5 ml	...	YES
100	Tdap.....(115)...	Active.....	07/12/06..	.5 ml	...	YES
101	TET TOX....(35)...	Active.....	06/10/94..	.5 ml	...	YES
102	TETTOX,NOS..(112)...	Inactive.....		.5 ml	...	YES
103	TICK-BORNE.(77)...	Inactive.....		.5 ml	...	NO
104	TIG.....(13)...	Active.....		.5 ml	...	NO
105	TST,NOS....(98)...	Inactive.....		.5 ml	...	NO
106	TST-OT TIN.(95)...	Inactive.....		.5 ml	...	NO
107	TST-PPD....(96)...	Active.....		.5 ml	...	NO
108	TST-PPD TI.(97)...	Inactive.....		.5 ml	...	NO
109	TULAREMIA .(78)...	Inactive.....		.5 ml	...	NO
110	TWINRIX....(104)...	Active.....	03/26/06..	.5 ml	...	NO
111	TYPHOID,N..(91)...	Active.....	05/19/04..	.5 ml	...	NO
112	TYPHOID,OR.(25)...	Active.....	05/19/04..	.5 ml	...	NO
113	TYPHOID,PA.(41)...	Active.....	05/19/04..	.5 ml	...	NO
114	TYPHOID,PM.(53)...	Active.....	05/19/04..	.5 ml	...	NO
115	TYPHOID,VI.(101)...	Active.....	05/19/04..	.5 ml	...	NO
116	VACCINIA I.(79)...	Active.....		.5 ml	...	NO
117	VARICELLA..(21)...	Active.....	01/10/07..	.5 ml	...	YES
118	VEE, INACT.(81)...	Inactive.....		.5 ml	...	NO
119	VEE, LIVE..(80)...	Inactive.....		.5 ml	...	NO
120	VEE, NOS...(92)...	Inactive.....		.5 ml	...	NO
121	VZIG.....(36)...	Inactive.....		.5 ml	...	NO
122	VZIG-IND...(117)...	Active.....				YES
123	YELLOW FEV.(37)...	Active.....	11/03/04..	.5 ml	...	NO
124	ZOSTER.....(121)...	Active.....	09/11/06.....			YES

12.0 Appendix C: ImmServe

Vaccine Forecasting Rules

These parameters are in the IMM/Def Table and are used for forecasting vaccine doses.

Vaccine Dose	Acceptable Age	Recommended Age	Past Due Age	Minimum wait since last dose	Maximum Age
HBIG	0M	0M			7D
HepB1	0M	0M	3M		18Y
HepB2	4W	4W	5M	4W	18Y
HepB3	24 W	6M or 12 M	13M	8W	18Y
DTorP1	6W	6W or 2M	3M		(7Y)
DTorP2	10W	4M	5M	4W	(7Y)
DTorP3	14W	6M	7M	4W	(7Y)
DTorP4	12M	12 or 15M	19M	6M*	(7Y)
DTorP5	4Y	4Y	6Y	6M	(7Y)
Tdap adol.	11Y	11Y		5Y	18Y
Tdap adult	19Y	19Y		10Y	64Y
TD_B	21 Y	(65Y)		10Y	
Hib1	6W	6W or 2M	3M		59M
Hib2	10W	4M	5M	4W	59M
HibTITER3	14W	6M	7M	4W	59M
HibTITER4	12M	12 or 15M	16M	8W	59M
PedvaxHIB3	12M	12M	16M	8W	59M
IPV1	6W	6W or 2M	3M		18Y
IPV2	10W	4M	5M	4W	18Y
IPV3	14W	6,12, or 15M	19M	4W	18Y
IPV4	4Y**	4Y	6Y	4W	18Y
Pneum-conj	6W	6W or 2M	3M	4W	59M
Pneum-conj	10W	4M	5M	4W	59M
Pneum-conj	14W	6M	7M	4W	59M
Pneum-conj	12M	12Mor 15M	16M	8W	59M
Rota1	6W	6W or 2M	3M		12W
Rota2	10W	4M	5M	4W	32W
Rota3	14W	6M	7M	4W	32W
MMR1	12M	12 or 15M	16M		18Y
MMR2	4Y***	4Y	6Y	4W	18Y
Varicella1	12M	12M	19M		18Y
Varicella2	13M	4Y	6Y	3M (4W>13Y)	18Y
HepA1	12M	15M	25M		18Y
HepA2	18M	21M		6M	
Influenza	6M	6M		4W	59M
Mening CV4	11Y	11Y			15Y

Vaccine Dose	Acceptable Age	Recommended Age	Past Due Age	Minimum wait since last dose	Maximum Age
HPV1	9Y	11Y			26Y or 18Y
HPV2	9Y	11Y		4W	26Y or 19Y
HPV3	9Y	11Y		12W	26Y or 19Y

Figure 11-1: Vaccine forecasting rules

- * For screening table, minimum interval is 4 months (-4 days if 4 day grace period).
- ** For screening table, minimum age is 18 weeks (-4 days if 4 day grace period).
- *** For screening table, minimum age is 13 months (if first dose given at 12 months).

Options for Customizing Vaccine Forecasting:

Forecasting options are listed in the Edit Site Parameters option of the Manager's Menu (MGR→ESP). Parameter 8 allows the Program Manager to choose to forecast due dates at the "Acceptable Age" or at the "Recommended Age." Parameter 9 allows the Program Manager to choose a set of "ImmServe Forecasting Rules."

Forecasting Adult Vaccines:

The new Immunization software forecasts the minimum Adult Vaccines, including:

- Tdap is forecast one time for persons between 11 and 64 years of age. Tdap will be forecast for 11 to 18-year-olds if >5 years have elapsed since the last DT containing vaccine, and will be forecast for 19 to 64-year-olds if >10 years have elapsed since the last DT containing vaccine.
- Influenza vaccine – forecast each year for persons over 50 years of age. Influenza is forecast for persons 2 to 49 years of age who have had two visits in the past three years for a high-risk medical condition.
- Pneumococcal vaccine – forecast for persons over 65 (55) years of age. Pneumococcal vaccine is also forecast for persons 5 to 64 (55) years of age who have had two visits in the past three years for a high-risk medical condition.
- HepB – forecast for adults who received a dose at an age younger than 18-years-old.

Version Variant Table (Recommended Ages)

The following table is an example of the current set of ImmServe Forecasting Rules, v8.2. Options 1, 3, 5, 7, 8, 9 forecast the first series at 6 weeks. *Adult vaccine options: TD-Adult -forecast every 10 years starting at 11 years of age. Influenza vaccine - (>50) forecast turned on 9/1/-12/31. **Pneumococcal - (>65 or >55) forecast once, except in Alaska where it is done every 6 years.

Forecasting Options

New Table new option 1 (NM) and new option 6 (15 mo Var), and 10 (12 mo. IPV), deleted old option 1 (15m Hib) and 6 (15m IPV).

Recommended Ages (revision 11-30-05)

Vaccine	Option 1 6m IPV 12m Hib, MMR,Var, Pn 15m DTaP	Option 2 12m IPV, Hib, Var, MMR, Pn,15m DTaP	Option 3 6m IPV 12m DTaP, Hib, Var, MMR,Pn	Option 4 12m DTaP, Hib, IPV, MMR, Var, Pn	Option 5 6m IPV 12m Hib, MMR Var, 15m DTaP,Pn	Option 7 Comvax, 6m IPV 12m HepB, Hib, DTaP, Pn MMR,Var,	Option 9 Comvax 6m IPV 12m HepB, Hib Var MMR 15m DTaP, Pn	Option 11* 6m IPV 12m Hib, MMR,Var, Pn 15m DTaP
HepB 1	0M	0M	0M	0M	0M	0M	0M	0M
HepB 2	6W	2M	6W	2M	6W	6W	6W	6W
HepB 3	6M	6M	6M	6M	6M	12M	12M	6M
DTorP 1	6W	2M	6W	2M	6W	6W	6W	6W
DTorP 2	4M	4M	4M	4M	4M	4M	4M	4M
DTorP 3	6M	6M	6M	6M	6M	6M	6M	6M
DTorP 4	15M	15M	12M	12M	15M	12M	15M	15M
DTorP 5	4Y	4Y	4Y	4Y	4Y	4Y	4Y	4Y
Tdap	11Y	11Y	11Y	11Y	11Y	11Y	11Y	11Y
Hib 1	6W	2M	6W	2M	6W	6WPedvax	6WPedvax	6W
Hib 2	4M	4M	4M	4M	4M	4MPedvax	4MPedvax	4M
Hib3 HboC	6M	6M	6M	6M	6M			6M
Hib 4 (3)	12M	12M	12M	12M	12M	12MPedvax	12MPedvx	12M
IPV 1	6W	2M	6W	2M	6W	6W	6W	6W
IPV 2	4M	4M	4M	4M	4M	4M	4M	4M
IPV 3	6M	12M	6M	12M	6M	6M	6M	6M
IPV 4	4Y	4Y	4Y	4Y	4Y	4Y	4Y	4Y
MMR 1	12M	12M	12M	12M	12M	12M	12M	12M
MMR 2	4Y	4Y	4Y	4Y	4Y	4Y	4Y	4Y
Varicella1	12M	12M	12M	12M	12M	12M	12M	12M
Varicella2	4Y	4Y	4Y	4Y	4Y	4Y	4Y	4Y
HepA 1	15M	15M	15M	15M	15M	15M	15M	15M
HepA 2	21M	21M	21M	21M	21M	21M	21M	21M
PCV7 1	6W	2M	6W	2M	6W	6W	6W	6W
PCV7 2	4M	4M	4M	4M	4M	4M	4M	4M
PCV7 3	6M	6M	6M	6M	6M	6M	6M	6M
PCV7 4								

Vaccine	Option 1	Option 2	Option 3	Option 4	Option 5	Option 7	Option 9	Option 11*
	12M	12M	12M	12M	15M	12M	15M	12M
Rota 1	6W	2M	6W	2M	6W	6W	6W	6W
Rota 2	4M	4M	4M	4M	4M	4M	4M	4M
Rota 3	6M	6M	6M	6M	6M	6M	6M	6M
MenCV4	11-15Y	11-15Y	11-15Y	11-15Y	11-15Y	11-15Y	11-15Y	11-15Y
**Flu	50Y	50Y	50Y	50Y	50Y	50Y	50Y	50Y
**PneuPS	65Y	65Y	65Y	65Y	65Y	65Y	65Y	65Y

Figure 11-2: Example of the current set of ImmServe forecasting rules

*Option 11 forecasts the same as Option 1; however, it does not forecast Hep A or Hep B in any person ≥ 19 years

** Flu and Pneumo are forecast in 5-50 (65) year old persons with 2 visits in the past 3 years for a high risk condition.

13.0 Appendix D: High Risk ICD-9 Codes

Taxonomy of High Risk ICD-9 Codes

This appendix lists the ICD-9 Codes used to trigger the forecast of Flu and Pneumo immunizations in high risk persons who are not automatically forecast by their age.

13.1 Influenza

Persons 3 to 49 years who have 2 or more visits in the past 3 years with a diagnosis ICD-9 code in this list will be forecast for Influenza vaccine.

Influenza Vaccine High Risk Taxonomies (1/2/06)

Influenza Vaccine High Risk Taxonomies	
042.0-043.09, 044.9	HIV Infection
250.00-250.93	Diabetes
393.-398.99	Rheumatic Heart D
402.00-402.91	Hypertensive HD
404.00-404.93	Hyperten Heart/Renal
410.00-414.9	Ischemic HD
415.0-416.9	Pulmonary HD
424.0-424.9	Other Endocardial HD
425.0-425.9	Cardiomyopathy
428.0-428.9, 429.2	CHF
491.0-491.9	Chronic Bronchitis
492.0-492.8	Emphysema
493.00-493.91	Asthma
494.0-496.	Bronchiectasis, CLD, COPD
501-505	Pneumoconioses
571.0-571.9	Chronic Liver Dis.
581.0-581.9	Nephrotic Syndrome
585.	Renal Failure
996.80-996.89	Transplant
V42.0-V42.89	Kidney Transplant
V58.2	Chemotherapy
V67.2	Chemotherapy f/u

13.2 Pneumococcal

Persons 5 to 64 years who have 2 or more visits in the past 3 years with a diagnosis ICD-9 code in this list will be forecast for Pneumococcal vaccine.

Pneumococcal Vaccine High Risk Taxonomies (1/2/06)

Pneumococcal Vaccine High Risk Taxonomies	
042.0-043.09, 044.9	HIV infection
250.00-250.93	Diabetes
303.90-303.91	Alcohol Dependency
428.0-428.9, 429.2	CHF
492.0-492.8	Emphysema
494.0-496.	Bronchiectasis, CLD, COPD
501-505	Pneumoconioses
571.0-571.9	Chronic Liver Dis.
581.0-581.9	Nephrotic Syndrome
585.	Renal Failure
865.00 - 865.19	Spleen Injury
996.80-996.89	Transplant
V42.0-V42.89	Kidney Transplant
V58.2	Chemotherapy
V67.2	Chemotherapy f/u

14.0 Appendix E: Package Setup Information

This appendix contains print-screen of the entire text of the Package Setup Information that is presented under the PKG – Package Setup Information option of the Manager Menu (MGR→PKG).

Setup Information for Version 8.2

The text presented here is intended to provide Site Managers with helpful information regarding setup and management of the RPMS Immunization Package version 8.2.

14.1 Options

The main menu option for the Immunization package is BIMENU. At most sites this would be placed on AKMOCORE along with other RPMS packages. For the sake of consistency from site to site, it is recommended that the synonym "IMM" (Immunization) be given to the Main Menu option BIMENU. However, this is not a requirement. BIMENU allows access to every other option within the package. (The Package Keys, BIZMENU, BIZ EDIT PATIENTS, and BIZ MANAGER, are discussed below under Security in Section II).

The option BI PATIENT VIEW/EDIT, "Patient Immunization Record," is the main option for all users to view a patient's immunization data. This option allows users to display or print the patient's Immunization History and Forecast, Official Immunization Record, and Health Summary. If the user has the appropriate key (BIZ EDIT PATIENTS), additional actions for adding/editing patient data will be made available under this option.

Note: Users accessing this option will have *no* Add/Edit capability whatsoever – it will be informational only – *unless* they have the BIZ EDIT PATIENTS Key, in which case additional Add/Edit Actions will be available (See Security Section II below).

This option may be attached to any other Kernel menu and need not be accessed via the main menu, BIMENU. This option is found within the package under the Patient Menu of the Immunization Main Menu.

After this package has been installed and the BIMENU and BI PATIENT VIEW/EDIT options added to the appropriate menus, it is a good idea to run the Build Primary Menu Trees option under Kernel Menu Management (under AKMOEVE). This will enable users to jump to menu synonyms within the new Immunization Package.

There is also an option called BI LOT NUMBER NON-MANAGER, which is locked by the Key BIZ LOT NON-MANAGER. This “stand-alone” option is *not* connected

to the rest of the RPMS Immunization Menu; instead, it may be assigned to any menu of any user for the purpose of adding and editing lot numbers in the Immunization Package. The option allows someone, such as a pharmacist, to add and maintain the Lot Number Inventory without gaining access to the rest of the Manager Menu in the Immunization Package.

14.2 Security

The Security Key BIZMENU allows users to access the Main Menu of the RPMS Immunization Package, BIMENU, and its submenus for viewing patient data and reports. The BIZMENU Key does *not* provide any add or edit capabilities; however, holders of this key may print patient letters, view patient data, and run reports.

The Security Key BIZ EDIT PATIENTS allows users to add and edit a patient's Immunization History, Contraindications, Skin Tests, Parent/Guardian, etc. This key does not provide access to any additional menu options; instead, it adds several Actions to the main Patient View screen. This key should be given to staff that are responsible for data entry and Patient Management.

The security key BIZ MANAGER allows a user to access the Manager Menu (BIMENU-MANAGER), which is a submenu of the Main Menu (BIMENU). The Manager Menu provides access to many sensitive functions pertaining to Site Parameters, Form Letters, the Vaccine Table, Lot Numbers, Exports, and the allocation of Security Keys.

The BIZ MANAGER Key should only be given to the manager of the Immunization Package.

Also see "Explanation of Keys" Action on the HOLDERS OF IMMUNIZATION KEYS" Screen (MGR→KEY→Exp).

Note: Assignment of the option, BI LOT NUMBER NON-MANAGER, to other menus in RPMS is done by the local Site Manager, as is the key, BIZ LOT NON-MANAGER. This option and its key cannot be assigned from within the Immunization Package itself.

14.3 Devices

This package makes extensive use of the VA Screen Manager and List Manager, which requires that several of the cursor and screen handling fields of the Terminal Type file be present for any Device accessing the package. It is recommended that any Device accessing this package be given a Terminal Type ("Subtype") of "C-VT100," since the standard VA Kernel distribution comes with all of the necessary

codes pre-loaded. A user whose Terminal Type does not contain a complete set of screen handling codes will receive a message that ScreenMan cannot "load the form."

If you suspect that the screen handling codes for C-VT100 on your system are not complete, this package comes with a routine, BIVT100, which will update (as of 2000) your VT100 codes. The routine must be run from Programmer Mode, and a line with ZIS must be uncommented. This job should be done by a programmer or experienced Site Manager.

Other Terminal Types may also be chosen; however, the screen handling codes for Cursor movements, "PF keys," "Erase Entire Page," etc., may need to be entered manually if they are not already present for the selected Terminal Type.

If for some reason it is not practical to define Devices accessing the package with a Subtype of C-VT100, users of the package may be given a "DEFAULT TERMINAL TYPE FOR LM" in the NEW PERSON File #200 of C-VT100. (They will then be given a Terminal Type of C-VT100 regardless of which DEVICE they sign on through). It may also be necessary to set the field "ASK DEVICE TYPE AT SIGN-ON" (again in file #200) equal to "ASK" in order to get a user's Terminal Type to change to the C-VT100.

It is important that PCs accessing this software through terminal emulation software have their function keys F1-F4 set to transmit standard VT-100 codes for these keys rather than other customized codes.

This software makes use of basic character format codes such as Reverse Video, Highlight, and Underlining. It may be helpful to adjust the colors that the terminal emulation software employs to display these formats.

There are several network terminal emulation programs available, however many of them have limitations such as not recognizing function keys, not displaying reverse video, not slave printing, etc. As of this printing, we have found that NetTerm 4.2e available at a nominal cost from Intersoft International, Inc., via the WWW is among the best products for use with RPMS software. Trial versions may be obtained online at: <http://www.secureneterm.com/html/netterm.html>.

Initial difficulties with the screen handling codes for ScreenMan and ListMan are not specific to Immunization. However, if problems with the setup cannot be resolved, please contact your Computer Support staff for further assistance.

14.4 Site Parameters

As part of the installation of this new version of Immunization, the site parameters must be reviewed and edited.

The Site Parameter screen may be accessed from the programmer prompt by entering "D ^BISITE" (no quotes). It may also be accessed from within the Immunization menus by selecting Manager Menu from the Main Menu, and then selecting Edit Site Parameters (MGR→ESP). Help text is displayed during the edit each Site Parameter.

14.5 Vaccine Table

The Immunization Package version 8.2 comes with a Vaccine Table that has been standardized with the CDC's NIP HL7/CVX Code Table. The vaccine table, spellings, CVX codes and CPT codes are taken directly from the CDC table <http://www.cdc.gov/nip/registry/hl7/hl7-cvx.pdf>. There are several new fields in the Vaccine Table that relate to new functions in the package, most notably the ImmServe Forecasting utility. For this reason it is critically important that specific fields within the table not be altered.

Each time a user logs into the Immunization Package, the Vaccine Table is checked for integrity. If certain fields have been altered, a warning message is issued, and several functions within the package begin to display the warning. Some basic functions of the package will continue to operate, such as the display of a patient's immunization history. Other functions will only display the warning.

Listed below is the text of the warning (users without the BIZ MANAGER Key will not see the last paragraph). As the warning indicates, re-standardizing the table simply involves selecting RES from the Manager Menu. This can be done at any time, and users need not log out of the package. Runtime is a few seconds at most.

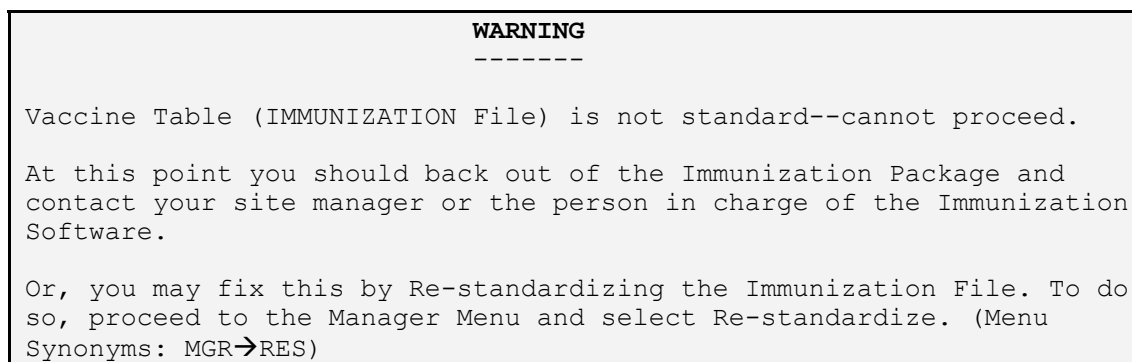


Figure 13-1: Warning screen

14.6 Duplicate Lot Numbers

Some sites have duplicate lot numbers in their IMMUNIZATION LOT File, which will cause the storing of Immunizations in the V IMMUNIZATION File to fail. RPMS Immunization v8.2 recognizes duplicate lot numbers ahead of time and informs the user. If the user holds the BIZ MANAGER Key, the text below will be displayed.

Two steps should be taken to resolve duplicate lot numbers:

Step 1:

Duplicate lot numbers are resolved under the Manager Menu, "Lot Number Add/Edit" (MGR→LOT). Go to this option and enter the lot number in question. Two or more choices will be presented. Select one of the choices to be the valid lot number. Edit this lot number, making sure it is active and that all relevant vaccines are listed under it.

Step 2:

Select and edit each of the duplicate lot numbers.

Edit the lot number itself by placing "z" at the beginning (e.g., 483-116 → z483-116). If there is a second duplicate, add "zz" to the beginning of that lot number; for a third duplicate, add "zzz" and so on. The adding of leading "z"s to the duplicates will make them distinguishable from the valid lot number. This method will also make the old duplicate lot numbers recognizable on pre-existing visits.

The duplicate lot numbers should also be made *inactive*. If an old visit is to be edited and it has one of the old duplicate lot numbers, the old duplicate should be replaced with the current valid lot number (easily recognized by ignoring the leading "z"s).

14.7 Protocols for Use by Other Packages

RPMS Immunization v8.2 contains three ListMan Protocols that may be of use to programmers of other packages:

- **BI PATIENT VIEW/EDIT EXT CALL:** This protocol calls up the ListMan Patient View/Edit screen. The called assumes that DFN (patient) defined. Other optional parameters are described in routine HAVEPAT^BIPATVW. Users will only have Edit capability if they hold the BIZ EDIT PATIENTS Key.
- **BI IMMUNIZATION ADDED:** This protocol is an Extended Action Type of Protocol (any protocols entered as ITEMS will be called when this protocol is called). The Description field of this protocol lists all of the defined variables that relate to the immunization that has just been added.
- **BI IMMUNIZATION DELETED:** This protocol is an Extended Action Type of Protocol (any protocols entered as ITEMS will be called when this protocol is called). The Description field of this protocol lists all of the defined variables that relate to the immunization that has just been deleted.

15.0 Appendix F: Word Processor Help

15.1 Summary of Key Sequences

15.1.1 Navigation

Incremental movement	Arrow keys
One word left and right	<Ctrl-J> and <Ctrl-L>
Next tab stop to the right	<Tab>
Jump left and right	<PF1><Left> and <PF1><Right>
Beginning and end of line	<PF1><PF1><Left>and <PF1><PF1><Right>
Screen up or down	<PF1><Up> and <PF1><Down>
or:	<PrevScr> and <NextScr>
or:	<PageUp> and <PageDown>
Top or bottom of document	<PF1>T and <PF1>B
Go to a specific location	<PF1>G

15.1.2 Exiting/Saving

Exit and save text	<PF1>E
Quit without saving	<PF1>Q
Exit, save, and switch editors	<PF1>A
Save without exiting	<PF1>S

15.1.3 Deleting

Character before cursor	<Backspace>
Character at cursor	<PF4> or <Remove> or <Delete>
From cursor to end of word	<Ctrl-W>
From cursor to end of line	<PF1><PF2>
Entire line	<PF1>D

15.1.4 Settings/Modes

Wrap/no wrap mode toggle	<PF2>
Insert/replace mode toggle	<PF3>
Set/clear tab stop	<PF1><Tab>
Set left margin	<PF1>.
Set right margin	<PF1>.
Status line toggle	<PF1>?

15.1.5 Formatting

Join current line to next line	<PF1>J
Reformat paragraph	<PF1>R

15.1.6 Finding

Find text	<PF1>F or <Find>
Find next occurrence of text	<PF1>N
Find/Replace text	<PF1>P

15.1.7 Cutting/Copying/Pasting

Select (Mark) text	<PF1>M at beginning and end of text
Unselect (Unmark) text	<PF1><PF1>M
Delete selected text	<Delete> or <Backspace> on selected text
Cut and save to buffer	<PF1>X on selected text
Copy and save to buffer	<PF1>C on selected text
Paste from buffer	<PF1>V
Move text to another location	<PF1>X at new location
Copy text to another location	<PF1>C at new location

15.2 Change to RPMS MailMan Full Screen Editor

Use the following steps for changing from Line Editor to Full Screen Editor in RPMS MailMan:

1. In RPMS: Select IHS Kernel Option: MailMan Menu
2. Select MailMan Menu Option: OML Other MailMan Functions
3. Select Other MailMan Functions Option: EML Edit user options
4. MESSAGE ACTION DEFAULT: ^ PREFERRED EDITOR
5. PREFERRED EDITOR: (Select: SCREEN EDITOR)
6. In Windows: Switch to Program Manager
7. Go into the Terminal Icon: Settings: Terminal Preferences:

“Use Function, Arrow, and Ctrl Keys for windows” should not be checked.

16.0 Index

A

acronym · 7
Action Area · 14
Action Options · 14
Action Prompt · 14
Active · 33, 74, 87
Age Range · 33

B

Backspace key · 12
BIZ Manager · 75
BIZMENU · 75

C

Case Manager · 10, 27, 31, 35, 55, 56, 58, 87
Case Manager, defined · 10
Category · 88
Community · 34
Contraindication · 18, 28, 87, 103
Cutting/Copying/Pasting · 115

D

Data Element · 73, 87
Date of Forecast/Clinic · 33
default · 11
Deleting · 114
Device prompt · 13
Doses Administered · 52
Due Letter · 9, 18, 29, 31, 39, 58, 87
Due List · 9, 31
Due Lists or Letters · 10

E

Exiting/Saving · 114

F

Facility Report Header · 59
Features · 90
File Format · 73, 87
Finding · 115
Forecasting Rules · 59, 103
Form Letter · 29, 39, 63
Formatting · 115

H

Header Area · 14
Health Summary · 18, 26, 87
Host File Server Path · 59

I

IMM/Def TABLE · 102
IMM/Serve · 10, 25, 87, 102
Immunization Profile · 18
Immunization Register · 7, 18, 25, 27, 87
Inactive · 33, 74, 88

K

Key, Locking · 7, 10, 75, 88

L

List Area · 14
Location · 23, 58
Location Type · 22, 88
Lot Number · 22, 24, 31, 66, 88
Lot Numbers · 60

M

Main Menu · 8
Manager Menu · 9, 22, 39, 55
Managers Menu · 23
Manufacturer · 88
Master List · 31, 33
Message Line · 14
Minimum Vs. Recommended Age · 59

N

Navigation · 114

O

Official Immunization Record · 10, 29, 30
Online Help · 12
option, defined · 7
options, locked · 7
Output Device · 73, 88

P

Patient Group · 33, 74
Patient Immunization Record · 8, 10, 18
Patient Menu · 8, 10, 17, 30, 31, 32
Patient Record · 27
Patient Registration · 18
Program Manager · 7, 10, 55, 73, 88, 103, 115

Q

Quarterly Immunization Report · 9, 10, 40, 41, 44, 47

R

Reaction · 23, 88
Register · 10
Reports Menu · 9, 40
Return Key · 11
RPMS · 7, 8, 10, 19, 24, 87, 88, 115
RPMS MailMan · 115

S

Settings/Modes · 114
Site Manager · 10, 12, 13, 73, 88
Site Parameter · 10
Site Parameters · 9, 58, 73, 88, 103
Skin Test · 18, 23, 25, 88

T

Translation Table · 89
Two-Yr-Old Immunization Rates · 9, 10, 49

U

UP and Down arrow keys · 12

V

Vaccine · 24, 28, 31, 35, 36, 49, 55, 66, 69, 89, 102
Vaccine Accountability Report · 9, 10, 40, 52
Version Variant Table · 103
Visit · 24, 25